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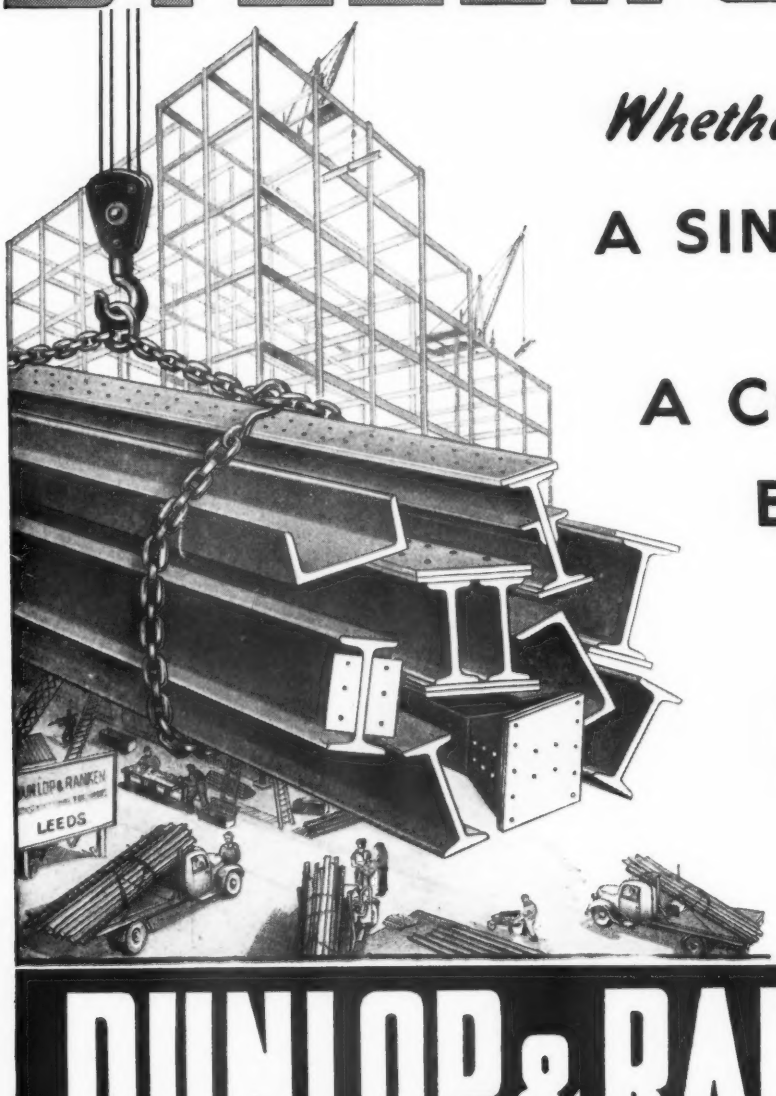

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Retirement of Mr. F. G. Baker

Members of all generations will, we are sure, extend their good wishes to Mr. F. G. Baker in his retirement after forty eight years in the service of the R.I.B.A. For many years he has held the post of Chief Clerk, and it is to his thorough 'staff-work' that we owe the traditional dignified and smooth working organization of Institute functions—to mention only one of his many fields of activity with which members are more familiar. No one who has seen Mr. Baker in action at an annual conference, for instance, could overlook his painstaking efficiency and forethought. He has seen the Institute grow step by step from a small metropolitan society which was managed easily and somewhat casually by a successful novelist, to its present complex organization, as is described in an article elsewhere in this JOURNAL.

Because no one now living, not even Sir Ian MacAlister, can remember the whole of Mr. Baker's career on the R.I.B.A. staff, we are not able to publish the full appreciation which is traditional in cases of retirement. We therefore asked Mr. Baker to write his reminiscenses for the JOURNAL. This he at first modestly declined to do, giving as his reason that 'some of the best stories could never be told.' However, under some pressure, he relented. It will be seen in his account on page 502 that he lists—almost casually—the principal changes and developments which have taken place in the Institute during his career. He does not say that all of them meant for him personally long hours of detailed work, much of it overtime, the meeting of crises and their solution and, as each step was successfully made, the tying up of loose ends and the filing of records. The Institute and its members have indeed been well served by him.

School Building in 1949

In Circular No. 180 the Ministry of Education have announced their programme and procedure for school building in 1949. It is hoped that the programme will be more than double that for 1948, though this will naturally depend on the amount of materials and labour available. The projects will naturally include a substantial proportion of arrears carried forward from this year. Even larger programmes are expected in 1950 and 1951 if the requirements of the new housing estates and the effect of the rise in the birthrate are to be met. The Ministry therefore urge education authorities to press on with the preparation of plans, particularly of projects for further education which are larger and more complicated than those for primary and secondary schools. The circular will be discussed fully in Practice Notes next month.

Harlow New Town Exhibition

The first exhibition to be held at the R.I.B.A. this session will be on Harlow New Town. Arranged by the Harlow Development Corporation, it will be on view at the R.I.B.A. from 23 to 30 October inclusive, between the hours of 10 a.m. and 7 p.m. (Saturdays 10 a.m. and 5 p.m.). The Minister of Town and Country Planning, the Right Hon. Lewis Silkin, M.P., will open the exhibition on Friday, 22 October, at 2.30 p.m. Admission is by invitation. The exhibition will show the town planning proposals, progress work and details of the first neighbourhood unit.

The New A.A. Journal

We offer editorial congratulations to the Architectural Association on the new make-up of the A.A. JOURNAL. The newly appointed Hon. Editor, Mr. Hugh Casson [*A*], has not wasted time in ridding it of its wartime-cum-paper-shortage 'hangover.' The cover, redesigned by Mr. Robert Harling, who was responsible for the cover of the R.I.B.A. JOURNAL, has a centrally placed illustration below two large 'fat face' letters 'A.A.' The background is in colour, the letters 'A.A.' in white and the other type in black. Both illustration and cover are to be changed with each issue. To those who have not seen the new A.A. JOURNAL our description perhaps sounds a little like one of the R.I.B.A. JOURNAL, and they might think it to be the sincerest form of flattery. They would be wrong; it bears only a very distant cousinly relation and has an agreeable distinction of its own.

Inside, the type has been changed to Times New Roman. In this we feel a little less isolated on the hilltop of novelty, now that the A.A. JOURNAL and HANSARD have joined us there by using the same type as ourselves. But beyond this any resemblance ends; two columns are retained; the headlines are in capitals and centred on the page and the layout of the illustrations has a greater degree of spaciousness than we can afford in these days of rapidly increasing Institute membership with the consequent demand upon paper.

The matter published is much the same as usual so that the new A.A. JOURNAL is an excellent example of what can be accomplished by a skilful designer. Give one cook a consignment of victuals and the result will be dull, unappetising and half raw; give the same victuals to a skilful cook and you will get a meal that is stimulating, digestible and satisfying. These last attributes the new A.A. JOURNAL certainly has. One might add, however, that this issue gains considerably by a report of Mr. Casson's witty paper on 'One Hundred Years of Type-set Architecture.'

Three Other Periodicals

The Bristol Society of Architects have published the first number of their new quarterly JOURNAL (price 1*s*.). It is well printed in dignified single column on art paper which gives full value to some excellent photographs. There is appropriately on the first page a message from the President of the Wessex Society of Architects, Mr. W. G. Newton [*F*]. This is followed by papers on 'The Mechanical Fallacy', by Mr. A. L. McMullen [*A*], and 'England's Gothic Treasure', by Mr. J. E. Barton [*Hon. A*]. The contents then become local in nature, dealing in succession with the Bristol Joint Consultative Board (set up in 1928 between the Bristol Society of Architects and the Bristol Association of Building Trades Employers), outings of the Society to Corsham Court and Lacock and the Isle of Portland, Society Notes and Notices, the Editor's Notebook and Book Reviews.

The editor, Mr. E. Freeth [*A*], is to be congratulated on a production which is a notable addition to the journals of Allied Societies no less than is the Bristol Society on their enterprise and optimism.

The OPERATIVE BUILDER (pocket size and priced at 3*d*.) improves with each issue. The National Federation of Building Trades Operatives have clearly felt the need to keep members of the Unions more informed of the activities of the central headquarters, for the current issue (No. 7) deals with such questions as the relation of wages to the cost of living, the new Building (Safety, Health and Welfare) Regulations, 1948, 'Pages from Our History' and direct labour; there is a full report of a speech at the Federation's Annual Conference by Mr. Durbin, Parliamentary Secretary, M.O.W., an account of the Painters' International Conference and a section of parliamentary reports. In an interesting statistical section at the end, we note that the Building Industry had 23,018 unemployed in June and that the wholesale price of building materials is now 218·3 per cent, taking the average for 1930 as 100.

The current number of PLAN, the journal of Arch. S. A. contains an article by Gropius on Teaching the Art of Design in which he tilts at the purely scientific approach to architecture. He suggests that it is 'a fallacy to expect that the historical and analytical approach alone produces creative ability' and he pleads for 'a continuous training of basic manual skill in experimental workshops combined with discipline in the fundamentals of surface, volume and space . . .' and, again 'drawing and painting are certainly most valuable means of self-expression, but . . . not enough to develop the sense of space. . .' Two other principal articles are a report of a discussion between architectural teachers and students on Group Working and a paper on Industrial Design Training followed by comments on it by some leading industrial designers. The illustrations maintain the high standard set by the first number.

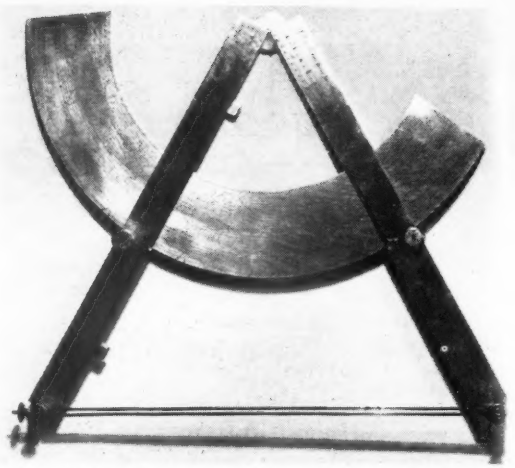
B.I.N.C. Congress Report

The full Report of the Fourth Building Congress, held at Folkestone in November 1947, has now been published. The price is 2*s*. and it is obtainable from the Building Industries National Council, 11 Weymouth Street, W.1. We published a summarised report of the Congress in the JOURNAL of December 1947.

New Towns Appointments

The Minister of Town and Country Planning has appointed Mr. Louis de Soissons, O.B.E., A.R.A., M.T.P.I. [*F*], as architectural town planner to the Welwyn Garden City Development Corporation and the Hon. Lionel Brett, M.A. [*A*] to the Hatfield Development Corporation.

Mr. de Soissons was from the start the town planner for Welwyn Garden City Ltd., and the Hon. Lionel Brett has been associated with Sir Patrick Abercrombie and Mr. Clough Williams Ellis in the preparation of plans for Redditch and Weston-super-Mare respectively.



A late eighteenth-century 'architectonic sector' made by G. Adams, recently purchased by the R.I.B.A. Library. It was described by Joshua Kirby in 1761 as 'a new instrument by which any part of architecture may be drawn with facility and exactness'.

The New Schools Exhibition in Glasgow

Before this JOURNAL is published the R.I.B.A. New Schools Exhibition will have opened on 16 September at the McLellan Galleries, Sauchiehall Street, Glasgow, where it will be on view until 28 September. The exhibition is being shown in Glasgow under the auspices of the Scottish Committee of the Council of Industrial Design assisted by the Royal Incorporation of Architects in Scotland. It is substantially the same exhibition as was shown at the Royal Institute except that the full scale model classroom could not be provided. Some local Scottish exhibits are being added.

The R.I.B.A. Library

After being closed during August for stocktaking and cleaning, the Library has reopened for use by members. In the first week of September over 300 books were despatched by post, a figure which gives some indication of the extent of the Library's activity today. Until the end of September the Library will close on Saturdays at 2 p.m. instead of 5 p.m.; after 1 October full normal working will be resumed.

The circulation of the Library Bulletin is now nearly 2,000. The present number, just published, consists of 24 pages containing the Review of Periodicals and the Accession List, both of which are fully annotated. More and more members are finding this service of value. The annual subscription is 10s. Among the accessions listed are a collection of fourteen 18th century prints, presented by Sir Giles Gilbert Scott, a working drawing by Street of the Law Courts, presented by Mr. G. H. Jenkins, designs and drawings by the late E. G. Mallows, presented by Miss S. D. M. Mallows, and a sketch by Lethaby given by the Rev. Canon S. W. Wheatley. Among the books presented are 30 volumes on Polish art and architecture, the gift of the Polish Minister of Reconstruction.

The Library Group held its first annual general meeting on 12 July. Meetings are held on the second Monday in each month commencing 6 p.m. R.I.B.A. members who wish to join the Library Group should apply to H. A. Bowen [*A*], 426 Staines Road, Twickenham, Middlesex.

R.I.B.A. Diary

FRIDAY 22 OCTOBER 2.30 P.M. TO SATURDAY 30 OCTOBER inclusive. Harlow New Town Exhibition (see page 481.)

TUESDAY 26 OCTOBER 6 P.M. A.S.B. Lecture. *Recent Developments in the Pre-casting and Pre-stressing of Concrete*. L. W. Elliott [*A*], A.M.I.C.E., A.M.I.Struct.E.

The Work of the R.I.B.A.

Part I

This article has been written as a response to requests made at the 1948 Annual General Meeting that the general body of members should be more fully informed about the policy, work and organization of the Royal Institute than heretofore. It is intended to be a general survey rather than a detailed analysis; for which reason activities are discussed rather than the work of individual boards, committees and departments; for these the Annual Reports should be studied. Other measures to report future changes in policy and organization are under consideration. This article has been contributed to by members and officials who have specialist knowledge of individual items; among them are Mr. Martin S. Briggs [*F*], Mr. Kenneth M. B. Cross, M.A. [*F*], Mr. R. F. Henniker, M.A. [*F*], Mr. S. Rowland Pierce [*F*], Mr. Alister G. MacDonald [*F*], and Mr. F. C. Wakeford [*L*].

THE R.I.B.A. AS A PROFESSIONAL SOCIETY

ONE OF THE difficulties of organization which every professional society has to solve is that of keeping members informed about the current policy and activities of its Council or other elected governing body. With large societies having a wide range of activities, a workable solution of this problem is not easy to find. Associated with this problem is that of keeping continuously in the minds of members a conception of the purposes for which the society exists, and of the basic aims towards which policy should tend; this involves giving members, particularly the younger members, something of a historical or long-term view of the body to which they belong.

These problems of publicizing among members both current policy and long term aims are becoming more acute in the Royal Institute as its activities expand and the status of architecture as a national service grows. Until recent years the average member, immersed in the pursuit of architecture, has given only occasional thought to the R.I.B.A., what it does for him and what he can do for it. Today the tightening effect of the nation's organization on the practice of architecture (as opposed to the old easy-going 'free-for-all') and the much closer association between the Royal Institute and government departments (which can and do make decisions vitally affecting the art and practice of architecture) is demanding more and more that architects shall know where they stand individually and collectively. Consequently the individual architect needs to understand more fully the policy of his professional body and if need be to take a more active part in its concerns.

This article is a new step towards meeting the need of members to know more about the aims and business of the Institute. Current proceedings have always been reported—perhaps in a desultory manner—in the JOURNAL and summarized as factual statements in the Annual Report. One defect of such a system is that the newly-qualified member comes in as it were 'in the middle of the picture' and lacks the background knowledge possessed by the older member with his memories of past policies, aims and struggles. Even the older member is liable to lose something of a broad outlook under the influence of current problems. Therefore this article seeks to summarize the various activities of the Royal Institute in more recent decades and to show how principal objectives of policy have been visualized, fought for, achieved and consolidated until they have arrived at the stage when the ordinary member takes them for granted. It also tries to show that this process is a never-ending one; the life of the profession is never static; new problems arise as old ones are solved.

The Broad Aims of Policy

A professional body like the Royal Institute exists only because and as long as its members believe in it. It is a democratic, self-governing amalgamation of architecturally qualified individual men and women who possess common ideals and aims. Those ideals and aims can be summarized as the well-being and progress of the art of architecture and of its practitioners. Good architecture is achieved by properly trained and qualified persons; an established system of practice is necessary to obtain sound and efficient construction and a well-understood building procedure; the qualified architect has to be ensured a fair remuneration, which means that he must be given protection against the incompetent or unscrupulous person—who may be either wholly outside the profession or on its fringes; the building public, which today is the whole nation, has to be given some understanding of architecture and the nature of architectural service. These are, very broadly, the basic aims of the Royal Institute; their achievement is to the good of architecture as an art and to the well-being of the individual architect

All the foregoing is perhaps best summarized in the words of the Royal Charter, which describes the R.I.B.A. as 'an Institution for the general advancement of Civil Architecture and for promoting and facilitating the acquirement of the knowledge of the various Arts and Sciences connected therewith'.

To obtain a true evaluation of the achievements of the Royal Institute in its 113 years of life, one ought properly to undertake a course of reading in the files of the BUILDER and BUILDING NEWS about the forties and fifties of last century. The editorial and correspondence columns would reveal a grim story of struggle against odds; unscrupulous 'job-stealing', the cutting of fees, nepotism in competitions, wholly inadequate education—in fact the vices which Charles Dickens characterized in Pecksniff. So far as the public was interested in architecture, which was hardly at all, there existed scarcely a trace of the present-day conception of architecture as a national service. Looking back on those days with a knowledge of conditions today, one would get some understanding of what the more far-seeing and active members of the profession have achieved through the medium of their Institute.

How the R.I.B.A. Functions

This brings us to the truism that any professional society is what its members choose to make it. The permanent officials of a body such as the Royal Institute are not unimportant; they have executive responsibilities; in many ways they resemble civil servants in having partly to do what they are told, but also in having the responsible task of obtaining and presenting information and advice on which the Council can base decisions. The real driving force in Institute affairs comes from the members themselves through the Council and committees; they provide most of the ideas and new movements; it is their attitude to current problems which makes the Institute effective—or otherwise.

Moreover, the R.I.B.A. is not wealthy (compared with some other professional societies), and has, therefore, to make correspondingly greater use of the voluntary services of individual members in addition to that of salaried officials. Therefore, whereas policy decisions are made by elected members of the Council and guid-

ance on policy is given by appointed members of Committees, there is also a large body of members who freely give their own time and knowledge in such things as the drafting of documents, the collection and design of exhibitions, the preparation and conduct of examinations, attendance at meetings and committees outside the Institute such as those of government departments, the British Standards Institution, and a host of other bodies whose names are baldly set out in the Annual Report. This use of voluntary effort is of special importance in the work of the Allied Societies. The freely-given services of many thousands of members over the last century have indeed done a great deal to make the Institute what it is today.

From time to time the Institute has taken a look at itself; the Centenary was such an occasion; the passing into law of the second Architects' Registration Act was another; at such times there is a justifiable pride in achievement. Yet always there are fresh problems ahead: no slackening of effort can be contemplated, because to slacken effort is to start recession. As the older members pass out of the active life of the Institute fresh blood is needed to take their place. So far as individual members are content to remain wholly immersed in their own practices and pursuits, so will suffer their collective life as represented by their Institute; and the reverse is equally true.

The Council

The professional society with its freely elected governing body is a typical product of British democracy. We are so used to free election that we sometimes overlook the fact that in some other countries it does not exist. R.I.B.A. Council members do not sit by favour of a government, political party or other caucus. The system of election is carefully prescribed and equally carefully guarded; for instance, the votes are not counted by officials, nor by existing members of Council, but by a volunteer group of ordinary members. Any seven members can nominate a member for election to the Council. The Institute's accounts are publicly audited and certified by two ordinary members. Any member can get up at the Annual General Meeting and ask any questions he wishes on any matter of Institute business and say what he likes—within the accepted decencies of debate.

During the life of the Royal Institute the Council has grown from being a group of metropolitan members into a carefully integrated body representative not only of the great majority of qualified architects in this country, represented both individually and through the Allied Societies to which they may belong, but having also some degree of representation of architects in the Dominions and Colonies. The Royal Institute is an empire-wide federal organization, and the Council exactly reflects that fact. It also reflects the fact that the membership of the R.I.B.A. consists of individual architects (of three classes), some of whom are members of Allied Societies and some of whom, notably London members, are not.

The membership of the Council is therefore made up in two ways, i.e. by direct election of Fellows, Associates and Licentiates by means of a postal vote of members and, secondly, by representation of Allied Societies. Of the former one-third retire annually and, provided they have not already served for six consecutive years, are eligible for renomination and re-election. This system, adopted in 1925, ensures continuity of policy which might be disrupted by too great a change of membership at an election. The nominated representatives of Allied Societies, consisting usually of the Presidents of the Societies, normally serve on the R.I.B.A. Council for one or two years. An elected member who has served for six consecutive years is not eligible for re-election until one year afterwards.

In addition there are certain ex-officio members. These include two Past-Presidents (who do not always attend so as to leave their successor a free hand). There are four Vice-Presidents, one of whom is Chairman of the Allied Societies' Conference; two others must be appointed from amongst the members of Council and the fourth may be appointed from within or without the Council. Other ex-officio members are the Chairman of the Board of Architectural Education, the Chairman of the Registration Committee, two representatives of the Salaried and Official Architects Committee, the President (or other representative) of the Architectural Association and the President of the Association of Building Technicians. The representatives of Dominion societies are nominated by them and are usually London architects who have some connection with the Dominion concerned; they are sometimes already elected members of the Council. The Honorary Secretary and the Honorary Treasurer are appointed by the Council.

To ensure that provincial members are adequately represented, the Royal Institute pays the travelling expenses of members who attend the meetings of the Council and Committees in London. The Council organization works very well. In practice it retains the services of members experienced in Institute affairs while, at the same time, there is a constant influx of new blood. The organization was carefully planned in 1923 to avoid the two extreme evils of, on the one hand, too sudden changes in personnel (and therefore of policy) and, on the other, of the Council becoming a caucus consisting of the same people over long periods of time and therefore one which would become unrepresentative and insensitive to change. It gives representation to all classes of membership whether privately practising or salaried or whether metropolitan or provincial.

The President

The President of the R.I.B.A. is elected by vote of the members. The candidate for the Presidency is nominated by the Council, although it is open to any seven or more members to nominate another candidate in opposition, in which case there has to be an election; but contests for the office of President have been very infrequent in the Institute's long history. The truth is that it is not too easy to find a man who is willing to undertake the onerous and responsible duties of the Presidency (which involves his neglecting his own work to no small extent), and who is at the same time acceptable to the bulk of members as their representative. Almost invariably the nominee has to be pressed to accept office, because he usually knows only too well what is involved.

The members see their President in the chair at general meetings, the annual conference, Allied Society dinners and similar functions. They listen to his speeches. Holders of this office in recent years have without exception so well fulfilled expectations that members have rather taken for granted the high standard of personality and public speaking which they have experienced.

The most important side of the President's work perhaps lies in his activities off the public platform. He undertakes negotiations on behalf of the Royal Institute with Ministers of the Crown and other public bodies; he has to guide and yet be guided by the Council; he often has to make decisions on urgent matters of policy between Council meetings, subsequently asking the Council to support his action—or otherwise. Almost every day he must attend the Institute to make decisions on matters referred to him or to initiate action.

Occasionally he is asked to nominate architects either for an individual job or to serve on a panel, though this is far more rare than some members suppose; he also sometimes nominates assessors in architectural competitions. These duties are the personal prerogative of the President, and are not subject to any outside control or to any advice unless he asks for it; however, he often seeks the advice of the President of the Allied Society in whose area the work is to be carried out. He usually nominates several architects from whom the enquirer can make his own selection. It can be said from observation that Presidents always nominate persons who have two important qualifications, namely, the ability to design a work of architecture, and known competence in getting it built. Local authorities and private concerns tend to be conservative and to ask for the names of architects who have had experience of the particular kind of building; occasionally the President is able to persuade clients not to limit his choice in this way.

The Machinery of Committees

Committees can, generally speaking, be regarded as machinery by which the Council gets done preparatory or detailed work on which it has to make decisions. Nevertheless, Committees also have another function, namely, that of drawing the Council's attention to matters which they, by reason of their specialist knowledge, think call for action; they are thus

initiating bodies as well as having work delegated to them. Less important matters are sometimes passed directly to Committees for opinion or decision by the Secretary, who has to decide those items which are or are not 'Council matters'.

Until a few years ago there were four Standing Committees—Art, Practice, Literature and Science—which were directly elected by the members annually. Other Committees were appointed by the Council. Today all Committees are appointed at the beginning of each session by the Council, after consideration of lists of names submitted by the retiring Committees. The Council by no means always accepts such lists 'in toto'.

Because committees have specialist outlooks, members are invited to serve on them because they are expert in the particular committee's subject and, what is equally important, because they are willing to give time to the work. It says much for the corporate altruism of the architectural profession that so many members are willing to serve on committees; the great majority give their time and knowledge almost unknown to their fellow architects; the names of some who serve on subcommittees or small groups do not even appear in the Annual Report. They have no reward but their own appreciation of work well done. There are in most sessions as many as 750 members doing voluntary work on the Institute Council, Boards, Committees and Allied Societies' Conference. This figure takes no account of the Councils and Committees of the Allied Societies.

Committees have an appreciation of their own continuity. While there is generally a nucleus of 'old hands' (not necessarily old in years) who possess collective experience of the committee's special problems, new members are brought in every year to replace those who leave it by reason of long service, age, or the demands of their practices. Potential new members are usually discovered by the old ones and asked unofficially if they would like their names to be submitted to the Council for membership of the committee in the next session; offers to serve sometimes originate from members themselves and such public-spirited action is always welcomed even if a place is not eventually found for the offerer. Committees also like some of their new members to be young in years, not only so that the Committee may have the viewpoint of the young practitioner, but also to ensure that the new member, being something of a 'learner', shall become experienced in the typical activities of the Committee, growing in course of time into an 'old hand'.

Because committees are 'machinery' (as we said above) they are little mentioned in the descriptions of Institute activities which are given below; an activity is the responsibility of the Council. Nevertheless, in reading what follows one should bear in mind the fact that the committees do the detailed work and that they have occasionally originated some of the important items of policy mentioned.

There are three committees which consist exclusively of Council members, the Executive Committee, the Professional Conduct Committee, and the Finance and House Committee. Other committees may or may not include members of Council. Some of them, like the Board of Architectural Education, the Public Relations Committee and the Architectural Science Board, have several sub-committees each responsible for a special field of activity. These are set out in the Annual Report. The majority meet regularly once a month during the session, as does the Council; others dealing with more urgent work, such as the preparation of exhibitions, may meet more frequently.

The Allied Societies

Nothing illustrates better the fact that the R.I.B.A. of today is an organic growth than the different ages, constitutions and areas of the Allied Societies. The older ones developed independent local existences when the R.I.B.A. was still largely a metropolitan society; they have different organizations, classes of membership and activities; a few have their own charters. Typical examples of the older English societies are the Liverpool Architectural Society, which has celebrated its centenary this year, and the Bristol Society of Architects, which will be 100 years old in 1950. The most senior is the Royal Institute of the Architects of Ireland, which is 109 years old. Many societies are sub-divided into Chapters or Branches. The total number of Allied Societies, Chapters and Branches is now 108.

It was not until 1889 that the beginnings of the present federal system came into existence. Until then the provincial societies had maintained separate existences without representation on the R.I.B.A. Council. Under new bye-laws, approved by the Privy Council in 1889, nine provincial societies became allied to the Royal Institute. Notwithstanding this alliance, however, relations between the provincial societies and the Royal Institute remained vague and the degree of corporate action was small. The next step was a scheme—instigated by the late Arthur Cates—for dividing the United Kingdom into architectural provinces of which the Allied Societies should be the accredited centres. This scheme, which is the basis of the present system, might have been stillborn had not the Liverpool Architectural Society taken the initiative in 1893 by inviting to a conference representatives of all the then existing provincial societies and of the Royal Institute. In spite of a sympathetic response by the R.I.B.A. Council to the resolutions passed by the conference, representation of the Allied Societies remained the subject of some dissatisfaction until the present constitution of the Council was approved by the Privy Council in 1925.

It has been suggested from time to time that the present system is illogical and should be reorganized with a central body and tightly controlled local branches who would receive directions from headquarters and thus all speak with one voice. Apart from the views of the Allied Societies themselves on such a change and the almost insuperable difficulties of reorganizing constitutions, it will be generally agreed that a self-grown organism is likely to have more vitality than one artificially created; at any rate that view has been held consistently by the Council.

The Allied Societies' Conference is attended by one representative of each Allied Society, Chapter or Branch, except in the case of some of the larger societies without branches, which are entitled to two representatives. The representative is usually, though not invariably, the President or Chairman of the Society, Chapter or Branch. The Conference, which as from this session will meet three times a year instead of twice yearly as heretofore, considers all matters which are of special interest to provincial architects and to the Societies themselves. The Allied Societies' Conference started as informal meetings at the R.I.B.A. in 1919 and became part of the official machinery in 1925.

The Honorary Secretaries or Secretaries of the Allied Societies meet once a year to discuss matters of administration and the like which are the peculiar province of the Secretaries. There is also a joint meeting of the Council and Allied Societies' Conference once a year to discuss general questions of policy.

ARCHITECTURAL EDUCATION

Many members may feel that the topic of architectural education has been dealt with so often and so fully that nothing fresh or interesting can possibly remain to be said on the subject; yet it continues to crop up with unfailing regularity, and to arouse brisk and even heated discussion whenever it is ventilated. One wonders if the members of other professions regard their particular forms of training so earnestly, whether each of them possesses its Old Guard and its young revolutionaries; and, if not, why not? There are, for example, some worthy architects who look upon the Orders as sacrosanct and fundamental, others who would jettison them as excess baggage or useless lumber. Is there anything corresponding to this in medicine or the law?

The Aims of Educational Policy

The basis of Institute policy is, obviously, the encouragement and certification of professional competence in the broadest sense, thereby enhancing the art of architecture and the dignity of our calling. The object is not to produce merely efficient draughtsmen either for private practitioners on the one hand or for the public service on the other, because no young architectural student can possibly foresee his future; the R.I.B.A. aims at producing competent all-round architects, as capable of working for private or municipal employers as of undertaking independent practice and winning competitions.

The Examinations

In the early days of the Institute's history there was no examination system. The

R.I.B.A. functioned as a learned and professional society, and elected its members on their supposed ability without any other test. The 'Voluntary Examination' for Associateship was introduced in 1863, and, from 1882 onwards, admission to the Associate class was restricted to those who had passed the qualifying examination. The Preliminary and Intermediate examinations, introduced in 1885, were made compulsory in 1895, but the former was afterwards discarded in favour of other approved qualifications for admission to the class of 'Probationers'. The Special Final Examination was a subsequent addition.

When the idea of compulsory examinations was first mooted in 1885, F. C. Penrose (then Vice-President) wished them to be confined to construction, materials and estimating, arguing that 'art' should be left severely alone as impossible to test by examination. Certainly fashions in architecture do fluctuate amazingly. Successful students' designs of 1900 would be laughed out of court today; and, though it may seem unkind to say so, those of today will probably be ridiculed 50 years hence. Many architects still deplore any attempt to regulate such things; but if the R.I.B.A. were to exclude Design from its examinations the qualifications of the competent architect would be little more than those of the sanitary inspector and the borough surveyor.

All this side of the Institute's work has grown enormously, and its various examinations now attract a very large number of students annually. (The current figures are abnormal, owing to the mass of ex-service students now in training; but in 1939 there were 827 candidates for the Intermediate and 832 for the Final Examination, including candidates from the recognized schools in each case, as explained below.)

The Recognized Schools

Even when this system of examinations had been firmly established, the Institute avoided any direct responsibility for teaching. A demand for educational facilities in London led to the foundation of the Architectural Association a century ago; and other schools, in universities and elsewhere, were soon started. In 1902-4 four of these schools which had established full-time courses were given the privilege of conducting their own examinations in lieu of the ordinary Intermediate Examination of the Institute, and at a later date this 'recognition' was extended to the Final, for certain schools.

The policy followed by the R.I.B.A. in recognizing additional schools has always been realistic. Recognition depends upon two factors; efficiency of teaching and organization on the one hand, local—or rather regional—needs on the other. The latter condition implies that, in order to recruit in any locality the minimum number of students to ensure an adequate scale of staffing for each year of the course, and to provide the opportunity for emulation which only a fair-sized school can give, each recognized school must serve a large and populous region. Thus the crowded areas of South Lancashire and West Yorkshire can fill two schools each, while some regions of England cannot maintain a single recognized school. Moreover, many large towns such as Bradford, Salford and Coventry are so near to existing recognized schools that the R.I.B.A. expects them to send their students there rather than weaken the latter by authorizing further centres. This may offend civic pride, but it is a sound principle adopted by other professions in their schemes of training. The case of London, where four schools are already recognized, is unique; and the Institute has decided to defer the question of any additions to the list until the present abnormal demands—after the interruption caused by the recent war—shall have abated and normal conditions have been restored. There is nothing haphazard or hidebound in any of these arrangements. More than 20 years ago, the R.I.B.A. prepared a list and map of the geographical centres where recognized schools seemed to be desirable ultimately, regardless of whether they then existed or not. Since then, many gaps have been filled and few now remain; but the list was never intended to be rigid and has been modified in several particulars.

The Board of Architectural Education

The additional responsibilities created by the creation of the Recognized Schools from 1902 onwards soon called for co-ordination at the centre, in order to ensure parity of treatment for the various types of examinee; and therefore the then existing Board of Examiners, as well as the committee which administered the R.I.B.A. Prizes and Studentships were merged in the 'Board of Architectural Education' in 1910. The Board was reconstituted on its present basis in 1925. Its name, if cumbrous, is appropriate; for it is more than an Education Committee of the Institute, nearly half its members being appointed by universities, public institutions or departments, associations and bodies connected with education. Though some of their delegates are, naturally, architects by profession, a number are not. The advantages derived from so catholic and representative a body have often been proved, but its membership is so large (nearly 70) that most of the detailed work has to be done by its three Committees, concerned respectively with Schools, Examinations, and Prizes. In the last resort, however, the Board has to determine all important matters of policy, subject to the final decision of the R.I.B.A. Council. It has to ensure that the examinations conducted by the now numerous Recognized Schools shall be approximately equal in standard to its ordinary 'external' examinations, Intermediate and Final. By means of its 'Visiting Board', a small body of five members (including two teachers), it periodically inspects the work of the Recognized Schools.

It need hardly be said that the amount of work thus entailed for the honorary officers of the Board itself, added to their duties as members of the Visiting Board, is now very heavy during their term of office. Fresh blood is introduced without loss of continuity by a system of constant rotation and change among the Honorary Officers and other members of the Board, on which the Recognized Schools are represented by their Heads. Thus there is ample opportunity for the introduction of new ideas without any abrupt reversal of policy; and the journeys of the Visiting Board keep its members in constant touch with conditions and trends in the Recognized Schools. The range of variation in the curricula of the schools and in the work produced by them is considerable, influenced to some extent by the tastes and personality of their Heads. If all schools were required to take the external examinations, a standardized curriculum could be established everywhere; but the Institute rightly prefers to favour a reasonable measure of autonomy for its Recognized Schools as being more healthy and stimulating for all concerned. Nevertheless, the Board's officers cannot allow themselves to be deflected from the Institute's main line of policy by every capricious sectional demand or half-baked suggestion, whether from teachers or students; innovations must be tested before they are accepted for general consumption.

Listed Schools

Apart from the Recognized Schools, the Board has recently established a closer link with the numerous technical and art schools which provide facilities for students preparing for the external examinations, by classifying the best of such institutions as 'listed schools', a step which extends still further the scope of the R.I.B.A.'s educational activities. In conclusion it may be observed that proposals are constantly being received for revising the Institute's examinations and for modifying the conditions and programmes for scholarships and prizes. All these require careful consideration before any decision can be made for their adoption or rejection; and here, as elsewhere in the wide field of architectural education, a sane, balanced, impartial judgment is essential.

PROFESSIONAL PRACTICE

At its formation one hundred and fourteen years ago the Institute of Architects (as it was then known) had as one of its objects the establishment of 'an uniformity and respectability of practice in the profession', and in 1845 the first Professional Practice Committee was set up to 'enquire as to the custom of architects in respect to professional charges and other matters connected with the practice of the profession, with such recommendations as they may think fit to insure an uniformity in such proceedings. To establish an honourable remuneration for the professional man and at the same time to protect the employer'.

Scales of Charges

This Committee commenced its work with an investigation of professional charges, and ascertained that 5 per cent on the cost

of the work was the recognized scale for an architect's remuneration. Indeed, the Committee found that payment on this basis was made as far back as 1777, and it can therefore be said to be a well-recognized usage. For many years this charge must have been made by mutual understanding between client and architect because it was not until 1862 that a Scale of Charges was published. Since then there have been many revisions of the Scale brought about by progress in building methods and the extension of the architect's professional activities. Building legislation, specialized forms of construction, and the arranging of specialists work have involved much additional labour with increased responsibility and liability, all of which justify the increase in the percentage charge which was made in 1919.

The Scale of Charges includes the conditions upon which the architect is employed, and emphasizes that the copyright in his drawings is his property. The ownership of the drawings is that of the person who employs the architect, a point which was decided by the Court in 1870 and confirmed by the Court of Appeal in 1905.

It is important to bring the Scale of Charges to the notice of the client at the time of employment. Failure to do so may result in dispute, and though the Court may look at the Scale as a guide to reasonable remuneration, litigation would not arise if the Scale is the basis of the contract between architect and client. The services included in the percentage charge, the services for which additional charges may be made and the mode and time of payment are clearly laid down in the Scale and there is no room for dispute in regard to these matters if the advice given on the inner cover of the printed document is followed. It should be particularly noted that the 1947 edition of the Scale applies only to work for which instructions were given on or after 1 December 1947.

In addition to the ordinary Scale of Charges there is the State-Aided Housing Scale and the State-Aided Multi-Storied Flat Scale, both of which are used for that particular purpose, i.e. State-Aided repetitive work.

The Scale of Fees issued by the War Damage Commission has not been agreed by the R.I.B.A., but the fees therein laid down are those that the War Damage Act empowers the Commission to repay. There are additional services in connection with war damage which the architect has to render and which are chargeable to the client, but the client is unable to recover such additional fees from the Commission. The position should be made clear to the client at the time of employment and the JOURNAL of March 1947 dealt with this matter in detail.

Forms of Contract

In 1870 the Professional Practice Committee considered Conditions of Building Contracts, and since then there have been many Forms of Contract. In 1931, after negotiations between the Royal Institute and the National Federation of Building Trades Employers, an agreed Form of Contract was issued where quantities form part of the contract, with an alternative Form where quantities do not form part of the contract. At the same time a Joint Contracts Tribunal was set up which today consists of representatives of the Royal Institute, the Royal Institution of Chartered Surveyors and the National Federation of Building Trades Employers. This body considers revisions of the Form of Contract, the latest Form being that dated 1939 (revised 1945). The Tribunal also issues Practice Notes* for guidance, being their opinion of the way in which the Form of Contract should be construed. There is a similar Form of Contract for use by local authorities which contains clauses necessary for a contract between a local authority and a contractor. In consequence of the National Insurance Acts the essential revisions to the Form of Contract have now been published.

These Forms of Contract are widely used, and are an equitable basis between employer and contractor. All decisions of the architect are open to arbitration at the instance of either employer or contractor—this being one of the revisions made in 1939. The architect can thus make decisions secure in the knowledge that as a dissatisfied party can question those decisions, he can exercise his judgment in an impartial way, uninfluenced by the fact that in some cases it would not be in favour of his employer.

Forms of Contract have been prepared for the making good of war damage either on a prime cost plus profit basis, or on a prime cost plus fixed fee basis. These Forms are based on R.O.D.I., which is the War Damage Commission's pamphlet setting out the definition of prime cost and the appropriate percentages to be added either by way of profit or fixed fee. Both these Forms are issued under the sanction of the Royal Institute and the National Federation of Building Trades Employers.

Professional Conduct

The duty of deciding whether or not a member of the Royal Institute has acted in a manner derogatory to his professional character lies with the Council. Though each case of alleged unprofessional conduct is dealt with on its merits there must necessarily be certain principles governing a member's conduct. These principles were embodied in a Code of Professional Conduct† which was published in 1900. It was one of the duties of the Professional Practice Committee in 1845 to consider the principles of professional conduct, and that duty is carried on today by the Practice Committee. This Committee makes recommendations to the Council which, if approved, become additions to the Code. The Practice Committee is concerned only with principles. It is the Professional Conduct Committee of the Council which investigates charges of unprofessional conduct, and it is upon its report that the Council adjudicate.

The Practice Committee consists of representatives from all parts of the country. It can, therefore, consider particular customs of practice which obtain in particular districts and frames its recommendations to the Council accordingly in cases where an addition to the Code is under consideration. It is a well-known custom in some parts of the country for architects to take out quantities for the buildings upon which they are engaged, and this point is dealt with in the Code. The distinction between advertising by an architect and propaganda which is necessary for the advancement of the profession sometimes gives rise to difficulties, and the Code indicates what is considered to be legitimate practice in this respect.

In addition to considering additions to the Code, the Practice Committee interprets the Scales of Charges when members refer their particular problems to the Royal Institute. Where it is evident that there is a dispute between client and architect a decision can be given only where both parties agree to that course. In other cases the President will appoint an arbitrator on the application of the parties.

In recent years Scales of Charges have been the subject of negotiation with Ministries and other bodies—Housing and temporary Government buildings are examples, and after negotiation the Practice Committee submits its recommendations to the Council for approval and publication.

The Royal Institute is established as the body to which the profession looks for guidance and from which those outside the profession seek opinion, and during its existence the standard of professional integrity has been raised, the evils of fee cutting have been largely eliminated and the principles laid down in the Code generally followed. The Royal Institute cannot, however, perform miracles, and it is sometimes expected that an Act of Parliament will be repealed at its bidding where the Act interferes with the usages of the profession. Strong representations can be and are made, but amending legislation at the present time is a forlorn hope. Ministries issue orders and regulations which make the architect's work more onerous, and in such cases the Practice Committee endeavours to obtain their relaxation. The exclusion of architect's fees in building licences and the amending of a licence to cover additional expenditure are recent examples. The Committee is alive to the difficulties and frustration of an architect's practice today and its members have personal experience of those matters. It uses its best endeavours to obtain alleviation.

REGISTRATION

Among the achievements of the Royal Institute in advancing the art and consolidating the practice of architecture, few have been more important than the ob-

* Not to be confused with the Practice Notes published monthly in the JOURNAL.

† Now called the Code of Professional Practice.

taining of statutory registration for architects. For those with a historical bias the bound volumes of the R.I.B.A. JOURNAL and the technical press provide much reading on registration; for more than fifty years before the first Act was passed there was almost continuous agitation for registration inside the profession and, in later years, outside it. In 1884 a number of the younger members of the R.I.B.A. pressed the Council to take the matter up. Failing in their efforts they founded the Society of Architects. The real struggle within the Institute started in the early years of this century, but it was not until 1906 that the Council was won over to the principle of registration. Up to then the majority had stoutly held that, as an art, architecture could not be controlled by statute. In pursuance of the policy then decided upon the Licentiate class was formed and negotiations were started for the absorption of the Society of Architects. This last proposal was not accepted at the time, though negotiations and agitation dragged on until the outbreak of war in 1914.

The Achievement of Registration

In 1919 a fresh start was made; the R.I.B.A. Council was reorganized on a wider basis in order to make the Institute more fully representative of architects all over the country, and in 1925 the Society of Architects was absorbed. In 1927 the R.I.B.A. succeeded in having the Registration Bill introduced in the House of Commons. After much hard work and public agitation the Bill became law in 1931. This First Architects' Registration Act merely provided that the title 'Registered Architect' could be used only by those persons on the statutory register. The Act also created the Architects' Registration Council of the United Kingdom to administer the Register; this made possible the next step. In 1938 the Second Architects' Registration Act was passed; this provided that only those on the Register could practice under the title of 'Architect'.

It is specially notable that the attendance of members of Parliament was exceptionally large in the House of Commons on the day of the critical third reading of the Bill which became the second Act. Private members' bills were traditionally taken on Friday afternoons just before the House closed for the week-end; they usually attracted no more than a handful of those members specially interested in the subject of the Bill before the House; many were talked out or failed to get a quorum. At the third reading, the Architects' Registration Bill was passed by 166 votes to 32, representing a figure of attendance for a private bill which it was said had been exceeded in recent years only by that for Sir Alan Herbert's Marriage Bill. This says much for the public interest which had been aroused by the agitation so well conducted by the Royal Institute.

Under both the 1931 and 1938 Acts provision had to be made for all those who were then allegedly practising as architects, or acting as architectural assistants, to have the opportunity of registering. The Admission Committee of A.R.C.U.K. has now almost completed the 'vetting' of those persons who sought registration under practice qualifications and in future, except for a very few cases, no-one will be able to get on the Register unless he has passed the examinations recognized by A.R.C.U.K. These are, in fact, the R.I.B.A. Final and Special Final, and those examinations at recognized schools which exempt from the Final Examination.

The few special cases mentioned above will be distinguished Dominion, Colonial or foreign architects who may wish to settle in this country at an age when they would not normally be expected to pass examinations. Safeguards against abuse of this method of admission are so drastic that it is practically certain only a very few genuinely eminent architects will be admitted under it.

The Future in Registration

The R.I.B.A. has now reached the end of the first stage of its registration policy which has required so much effort. The ultimate objective is naturally to prevent anyone performing the duties of an architect unless he is registered—a legal enactment found in some American states. At present in this country anyone can design and supervise the erection of a building provided he does not call himself an architect.

Clearly the time is not ripe for this next step. The second registration act has hardly begun as yet to be effective. Complicated negotiations with other professions would be necessary to determine the boundaries between architecture, engineering and surveying. Finally, no private members' bills have been given time in Parliament since 1939.

The Registration Committee is the instrument for carrying out R.I.B.A. policy on registration. It includes among its members the representatives of the Architectural Association and of the provincial associations who serve as members of the Architects' Registration Council of the United Kingdom.

ARCHITECTURAL COMPETITIONS

The system of architectural competitions which has evolved over a considerable number of years may be described as being unique in professional life. For a comparatively small financial outlay the young and unknown architect has his chance to show his ability and, if he is successful, to lay the foundations of his career.

During the last century competitions were frequently most unsatisfactory; the conditions were often loosely worded and were in fact frequently broken by the winner of the competition. Professional assessors were not always employed, and the building owner sometimes acted in this capacity. Then again the winner of the competition was not always employed to carry out the work. The number of the drawings required was often excessive, and the half inch scale detail drawings, drainage plans and perspective drawings which were called for threw a heavy and quite unnecessary burden on competing architects in days when the mechanical reproduction of drawings was in its infancy. Finally, suggestions that favouritism had been shown by assessors were sometimes made.

A small body of London architects had in the late 1890's formed themselves into a Competitions Society as a measure of self-protection, and this in turn was taken over by the R.I.B.A. in the early years of this century and the Competitions Committee of the R.I.B.A. was formed. From this time the R.I.B.A. has worked continuously and not unsuccessfully to remove the old evils and has built up a professional competition system which we are told by Continental architects is now regarded as the best in Europe, if not in the world.

Statistics

During the past century many of our most important public buildings were erected as the result of architectural competitions, and between 1918 and 1939 more than 400 competitions were held under the R.I.B.A. Regulations, including about 80 town halls, law courts, art galleries, etc., more than 50 schools, 30 hospitals, about 40 war memorials, a dozen churches and over 100 buildings of a miscellaneous character.

During the ten years from 1929 to 1939, the total cost of buildings for which competitions were held was probably about £10,000,000.

Development of System

From the days of Harvey Lonsdale Elmes, who won the St. George's Hall, Liverpool, Competition in 1839, and Joseph Paxton and his great glass house with which he won the competition, assessed by the Prince Consort, for the great Exhibition of 1851, the competition system has continued to develop. Since about the beginning of this century, this development has centred round the R.I.B.A., whose members have carried on a long and ceaseless struggle to ensure that competitions are properly conducted. Amidst a mass of detail, three outstanding principles have been fought for and have been established:

(1) That the award should be made by a professional assessor.

(2) That the award should not violate the conditions of the competition.

(3) That the winner of the competition should be employed to carry out the work.

In this country practically every architectural competition (as distinct from town planning) is run in conformity with the Regulations of the R.I.B.A. Should competition conditions be published without the knowledge of the R.I.B.A., and should the conditions violate the Regulations in an essential particular, members are warned by a notice in the JOURNAL to take no part in the competition.

Assessors

The choice of assessors is a real problem. In some cases it is made by the promoters

themselves, and it would be difficult for the R.I.B.A. to demand that this right should be taken away from them. In the great majority of competitions for important buildings or schemes, the advice of the President is sought. In consequence of a much criticized award in a fairly recent competition in which the assessors were appointed without consultation with the R.I.B.A., the Regulations were amended to provide that assessors should not only be architects of acknowledged standing, but that their names should be submitted to the President for approval. The fact remains that the President only nominates or approves—he does not appoint.

The assessor should be an architect of repute, and preferably one who has had some experience of the type of building in question. His job is, of course, one of great responsibility. He has to advise the promoters as to accommodation and cost, site questions and all the numerous and varied items with which an architect usually deals in the early stages of a building scheme. He has to draft the conditions of the competition and obtain the agreement of the promoters thereto, and in doing so, he has to see fair play as between promoters and competitors. His work is guided by the Regulations which have been compiled by a long process of alteration and addition during many years of discussion and debate on the part of the Competitions Committee and the Council.

Juries

Provision is made in the Regulations for what is known as the Jury System—'two or more assessors to act as a jury'. The R.I.B.A. has never insisted on the appointment of juries, but has left the matter to the promoters. It did, however, give a lead in the Competition for its own building which was assessed by a jury of five. Long experience of the jury system as opposed to the single assessor does not encourage conviction as to its merits. Sir Ian MacAlister has said he can remember only one award by a jury which had not given rise to a greater or less degree of dissatisfaction. The work of juries in international competitions has invariably been unsatisfactory and sometimes deplorable.

It can be argued with some force that the decision of a jury is frequently a compromise which leads to the selection of a mediocre rather than a brilliant and original design. One assessor selects an outstanding design, the second assessor selects a different one, and as the result of a long argument neither will give way and the award goes to an ordinary design about which it is difficult to have strong feelings. Further, it has been urged that with a jury of three or five there is a human tendency to let one man do the real work of judging and for the others to save themselves trouble by agreeing with him. The division of responsibility does not necessarily result in the same conscientious work as is likely to be done by a single assessor who alone is responsible for the award to the promoters, to the competitors and to the profession.

Two-Stage Competitions

Sometimes the two-stage competition is advocated, and it is, of course, open to promoters to hold competitions in two stages if they wish. The competition for the Central Wesleyan Hall in Westminster was one of these (Lanchester and Rickards), and there have been others. It does not appear that they are popular amongst architects as a whole, and from the promoters' point of view they necessarily take longer than a single stage competition. As it is at present, the time factor is a constant difficulty in persuading public authorities to promote competitions, and the two-stage competition increases this difficulty.

Limited Competitions.

Reference has only been made to open competitions, but there are also what are known as limited competitions, of which two kinds are recognized under the Regulations:

(*a*) Invitations to would-be competitors to submit their names and professional claims for inclusion in the competition are made by advertisement, each competitor to receive a specified sum for the preparation of his design.

(*b*) Personal invitations to a limited number of selected architects to take part in a competition, each competitor to receive a specified sum for the preparation of his design.

Limited competitions rather suggest that their promoters do not wish to take any chances, but at the same time they would have missed Harvey Lonsdale Elmes had the 'safety first' principle been applied at Liverpool.

Regulations

The R.I.B.A. Competition Regulations (Nos. A to F of which are regarded as essential) may be summarized as follows:

(A) Nomination of assessor.

(B) Competitors declaration of authorship.

(C) No promoter or assessor to assist a competitor.

(D) The premiums to be paid in accordance with the award, and the winner to be the architect for the building.

(E) Payment for work postponed for more than 12 months.

(F) Payment when work proceeds in accordance with R.I.B.A. scale—other clauses deal with the duties of assessors and the payment of assessors.

It is further laid down that competitions may be (*a*) open, (*b*) limited.

The number, scale, and method of finishing the drawings (which are only to be sufficient to explain the scheme) are laid down. The anonymity of the design is to be maintained, and the disqualification clauses are enumerated. Various clauses of minor importance complete the Regulations.

Model Form of Conditions, etc.

In order to assist the assessor in his work, as well as for the information of promoters, a Model Form of Conditions is provided, which may usefully serve as a basis in any architectural competition. In addition to the Regulations and Model Form of Conditions, a private and confidential document known as Directions to Assessors is sent to every assessor by the R.I.B.A. on being informed of his appointment. Further, assessors have at their disposal the advice of the officers of the Competitions Committee, if they wish, for guidance on any point connected with the organization of the competition.

Working of the System

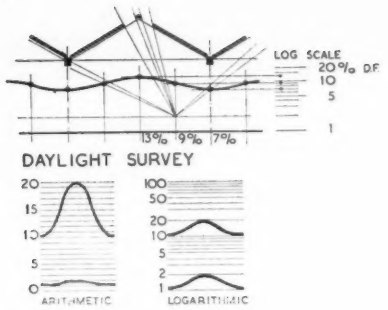
So much for the system—now as to its working. We most of us probably know the nature of the exacting toil required in mastering a set of conditions. The early schemes which seemed to be so brilliant but which on reflection would not work are followed by the more reasonable schemes which will work, but which are not outstanding, to be followed by the scheme which is outstanding and on which we are prepared to stand or fall. The wild rush to get the drawings done in spite of the urgent calls of current work—the cubing, the estimate, the declaration (where is that official envelope?), the report, and finally the desperate rush in a taxi to catch the last train.

And then at the other end—the drawings, declarations and reports numbered as they are received. The drawings hung in a large hall (with or without heating), the entry of the assessor, who if he is wise will lock the door behind him—and then the assessing.

The first move is to take a leisurely walk round, in order to get the 'atmosphere' of the competition—to see the kind of things the competitors are doing. The next move is to go round again, eliminating those designs which, both in plan and elevation, obviously will not do. The process of elimination is repeated for round after round, and in the later stages a notebook is used, until at last, say ten or twelve schemes remain. If these can be still further reduced, so much the better, but if not a system of marking may now be employed. The scheme may be marked for: (1) Layout, (2) planning, (3) elevations, and the section for planning may be sub-divided into departments if appropriate. Reference to the reports may now be made and the selection of the winner determined.

Such, in brief outline, is the system of architectural competitions as we now know it. One is fully conscious of its imperfections, of the bad awards which are sometimes made, of the apparent waste of labour by a large number of unsuccessful architects, and of the inevitable disappointments which they endure. In recent years, the Competitions Committee, to whom all draft conditions are submitted for approval, has worked hard to ensure that a design which violates the conditions shall not be placed first, that the winner shall carry out the building and that the work which competitors are asked to undertake shall be reduced to the absolute minimum.

To be continued.



Figs. 1 and 2

The Daylighting of Factories

By J. B. Bickerdike [*A*]

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DURING RECENT YEARS there has been a growing realization of the need for improving lighting and seeing conditions in buildings. It is reflected, for example, in the Regulations of the 1944 Education Act, where for classrooms a former standard of 0.5 per cent daylight factor has been increased to a minimum standard of 2 per cent, with a proviso that a higher figure of up to 5 per cent should if possible, be secured. Similarly in the draft B.S. Code of Practice dealing with houses, flats and schools, some specific recommendations are that in kitchens, the cooker, sink and part of the general working space shall lie within a 2 per cent daylight factor area; that in living-rooms the minimum standard should be 1 per cent at an 8 ft. depth of penetration or more, depending on room area; and that in bedrooms a slightly lower figure should operate.

No similar guidance has been available to designers of factories and reliance is usually placed on such arbitrary rules as providing glass equal in area to a percentage of the floor area. The number of inquiries received at the Building Research Station suggests that designers may welcome some guidance, and it is hoped that the present note will help to meet this demand.

Methods of Measurement and Principles of Design for Daylight

Since the brightness of the sky is constantly changing it follows that the light inside a building must also change, and it is not practical therefore to estimate the efficiency of a system of fenestration in absolute units such as foot candles. In a building the eye of the observer automatically tends to make a comparison with the brightnesses in his working environment and the brightness of the part of the sky visible through the windows; he judges good daylighting less by a sense of actual intensity than by one of proportion. The ultimate criterion of efficient illumination is its effect on the observer, and daylight at a point indoors is usually measured, as in fact it is appraised, as a ratio of the total illumination which would be received at the same moment out of doors from an unobstructed view of the sky. The ratio is called a *daylight factor*, and is expressed as a percentage.* Thus a daylight factor of 1 per cent at a point would signify that the illumination is 1 per cent of that which would be obtained if the whole hemisphere of the sky was contributing light.

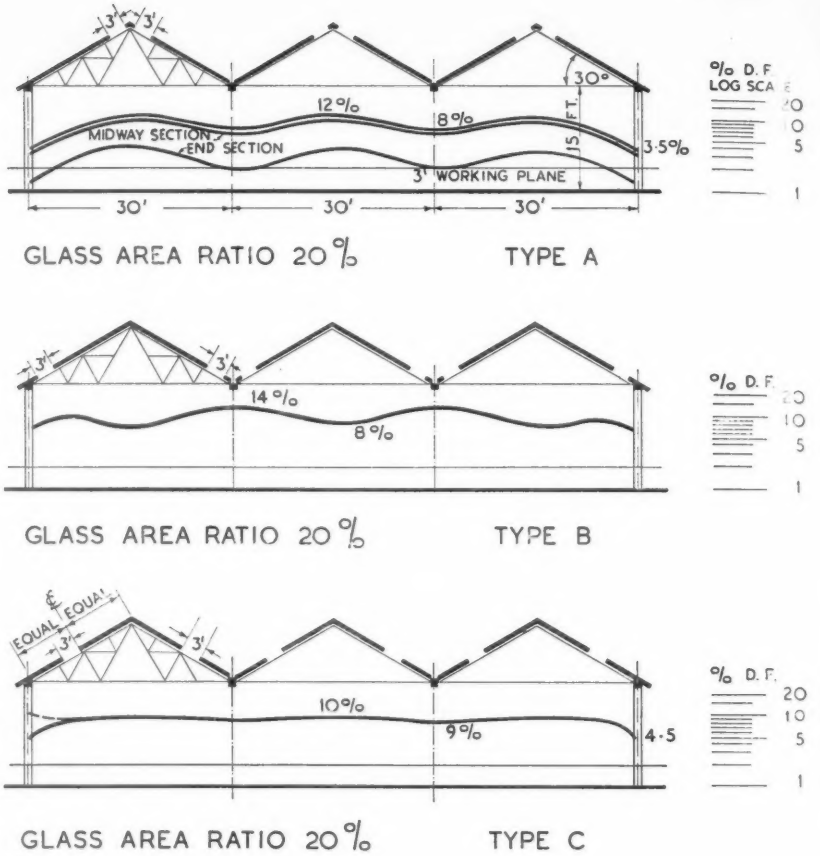


Fig. 3

*Here the term 'daylight factor' is used as in the Post-War Study Report on the Lighting of Buildings.

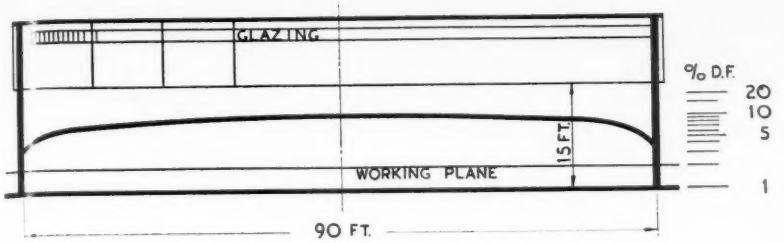
At the last (1939) meeting of the International Commission on Illumination a distinction was drawn between the daylight factor and the 'sky factor' at a point. The former includes reflected light as well as direct daylight, while the latter refers to direct light only. Further, the daylight factor is based on the illumination from the sky as it exists at the time of measurement, whereas the sky factor is based on the illumination from a sky assumed to be of uniform brightness equal to the average brightness of the portion of sky actually visible through the window. As it stands, common practice in computing daylight factors does not take any account of contributions of reflected light, though presumably there would be no objection to doing so if any reasonable method of computation were available. But the amount of reflected light is not often great enough to be an important factor.

An assumption is made for the purpose of daylight design that the sky is equally bright in all parts. This is never actually so. In this country, even on those days when the sky is overcast and the general illumination is low, the south sky is usually about twice as bright as the north, and the zenith lighter than the horizon. An allowance can, if desired, be made for this during analysis, but the assumption provides a satisfactory and workable basis for design.

The Process of Daylight Analysis in Factories

Though for general purposes several methods of computing daylight factors are available, the most suitable for factory analysis is by the Daylight Factor Protractors. These were devised at the Building Research Station in the early part of the recent war primarily to enable estimates to be made of the daylight available in the new wartime factories in which efficient distribution of light had to be obtained from minimum areas of roof glazing. The protractors have the particular merit of providing the proper corrections for sloping glass.

Reference should be made to the general way a daylight survey of a factory is made. The best course probably is to compute daylight factors on the working plane at points on lines crossing the workshop bays



LONGITUDINAL SECTION

Fig. 4

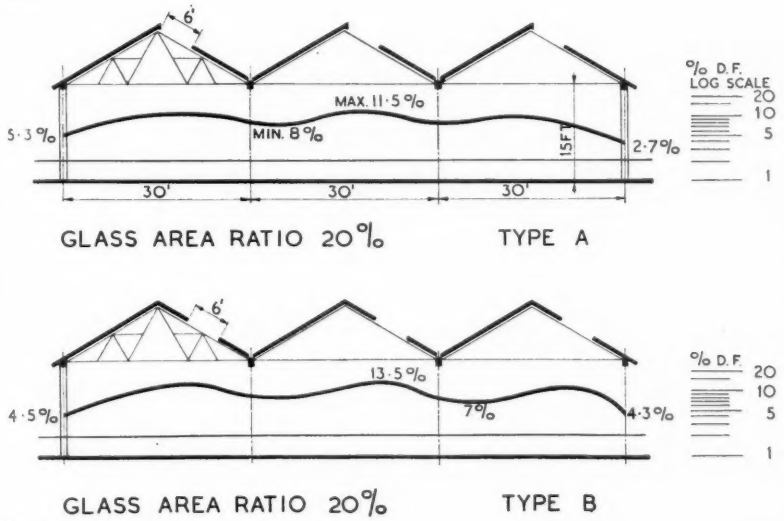


Fig. 5

at mid-way, quarter-way and close to the end wall of the bays. For the simpler kinds of fenestrations 7 or 8 points should be computed per bay along each line if the computer is unfamiliar with the analysis of daylight distribution. Probably 5 points will be enough, as shown in Fig. 1, when familiarity has been established. The second step in analysis is to plot each line of points on a scale so that curves can be drawn through them representing the changing intensities along each line.

A logarithmic scale is used in plotting the distribution because the curve which results is less open to misinterpretation than a curve based on an arithmetic scale. It is known, of course, that our eyes do not respond equally to equal changes in illumination but rather to equal proportional changes, and if an arithmetic scale is used, then a curve varying between 1 and 2 units will not resemble a curve varying between 10 and 20 units, though the differences will appear equal to the eye. A logarithmic scale corrects this. Curves illustrating this point are shown in Fig. 2. A log scale can be made directly from a slide rule.

Standard of Daylighting in Factories

No standard of daylight for factories in terms of daylight factors is laid down in the Factories Act of 1937. In Regulation No. 94 of the Act, a minimum standard of 6 foot candles is laid down as a general level for the working areas of a factory. Clearly this value refers only to illumination from artificial sources and is not really applicable to daylighting. The standard may be taken to correspond to a daylight factor of a little over 1 per cent during the two months of the year when outside intensities fall to about 500 lumens/sq. ft. This can be obtained in practice by an area of roof glazing as small as 5 per cent of the floor area. In existing factories glass areas are seldom less than 20 per cent, and daylight factors of 5 per cent are common. The lesser value would certainly be thought inadequate.

A comparison with the recommended values given in the I.E.S. Code for artificial lighting further illustrates the inadequacy. For example, it recommends for clothing manufacture 20 lumens/sq. ft. for cutting, seaming and inspecting medium colours, and 10 lumens/sq. ft. for pressing. These values correspond to about 4 per cent and 2 per cent daylight factor respectively under a 500 lumens/sq. ft. sky. For engineering work the code specifies values of the same order for fairly small bench and machine work, and gives a higher value of 50 lumens/sq. ft. representing 10 per cent daylight factor for finer bench and machine work, medium grinding and the setting of automatic machines. At the Building Research Station during the war the conclusion was reached that for most industrial purposes 5 per cent daylight factor was a desirable minimum level (though the studies on which this was based are insufficient to establish a final recommendation for more extensive use). If, in the building, a high proportion of fairly fine work is being done a correspondingly higher standard of, say, 10 per cent daylight factor may be considered reasonable.

In the analysis which follows an allowance of 10 per cent has been made for loss of light due to dirty glass, based on a cleaning period of six weeks, and a further 10 per cent reduction is made for glazing bars, making a total reduction of 20 per cent.

Daylighting and Factory Design

It is commonly asked, 'What area of glass do I need to put in the roof of my factory workshop?' The answer is that it is less the area of glass and more the position that really matters. For instance, in the north-light type of roof the ratio of glass area to floor area may be 35 per cent, and yet be considerably less effective than a ratio of 20 per cent used in another form of fenestration. It is a major objective to produce a uniform distribution of daylight, of high intensity and with a minimum glass area—in other words, to use the glass area efficiently and in this way keep heat losses down and reduce glass cleaning maintenance. If the glass area ratio is kept constant at 20 per cent, the various different types of factory roof may be usefully compared. It is convenient for discussion to divide factory workshops according to their roof structure. There are three major divisions; firstly, where double-pitched trusses are used so that glazing may be distributed on one or both pitches; secondly, single-pitched trusses of the sawtooth or north-light variety where normally glazing will be orientated in one direction only; and finally where the roof glazing is arranged in opposed vertical strips in a system known as 'Monitor' roofing.

Type 1. Fenestration of Double-pitched Roofs

To make comparison easier, the analysis of each type has been made using the same typical factory cross-section, shown in Fig. 3. It has three bays, and the span of each is approximately twice the height of the building to the underside of the trusses, and the length is assumed to be slightly more than three times the span of a bay. So, for example, each bay might be of 30 ft. span and 15 ft. height, and have an overall length of about 100 ft. Three examples of double-pitched roofs are shown in Fig. 3, and illustrate the daylight distribution which results from putting the glazing in different positions on each side of the roof. In Type A the glass on both pitches is very near the ridge line; in Type B it is at the bottom of each pitch adjacent to the valley gutters.

In each case minimum values are high and exceed 5 per cent daylight factor at practically all points taken along a centre-line crossing the bays at working plane height of 3 ft. In both Type A and B, however, the curves show that intensities vary considerably. When the glazing is near the ridge the curve records peak values of about 12 per cent immediately under the ridges and troughs of low values under the valleys. About 3.5 per cent daylight factor is reached near the walls and nearly 8 per cent daylight factor at the lowest point in the troughs. When the glazing is at the bottom of the slopes the position of the peaks and troughs is reversed and similar maximum and minimum values occur at these places.

Clearly, from these curves, there should be some intermediate location for the glazing for which the daylight distribution curve will be virtually a straight line indicating that no fluctuation of levels occur. Analysis showed that if the glass could be located in a position approximating to that shown in Type C, the curve of distribution is very nearly flat. It should be accurate enough in practice for factories of proportions similar to the example under discussion, to put the glass immediately adjacent to the centre line of each slope, toward the valley. Small proportional variations in the order of 10 per cent would have little effect on the validity of this rule. Values never fall below 9 per cent daylight factor except in the area immediately adjacent to the walls, where a sharp drop is encountered and the values fall to slightly below 5 per cent daylight factor. This drop will, to some extent, be compensated if the walls are of a very light colour as this would reflect an appreciable amount of light. Side lighting could, of course, be introduced in the walls, which would boost the values as shown by the broken line in Type C.

Reference to the curves for the midway and end sections in Type A indicates a general fall in intensities. The distribution retains similar characteristics, and it is only at the extreme ends that any serious reduction occurs. A typical curve for the longitudinal distribution is shown in Fig. 4. At the ends, values are a little more than half those which obtain on the centre line.

Frequently in practice glazing is located on one side only of the roof, and reference to the comparison shown in Fig. 5 reveals that the best position for the glass in this case is at the top of the slope near the roof ridge. In that position peaks of about 11.5 per cent daylight factor occur immediately below the glass and fall to about 8 per cent daylight factor under the valleys. The values lie within acceptable limits of variation, and if in fact more than three bays are to be used this arrangement of glazing may be satisfactory. As shown, values drop well below the 5 per cent level at the walls, particularly against the end walls.

The glass is often situated rather arbitrarily in the centre of the slope as in Fig. 5, Type B. The distribution curves show that values are only just within the acceptable limits of variation as maximum and minimum levels are 13.5 per cent and 7 per cent daylight factor respectively. In the experience of the Building Research Station, a permissible variation of 2 : 1 has been found to be satisfactory in practice.

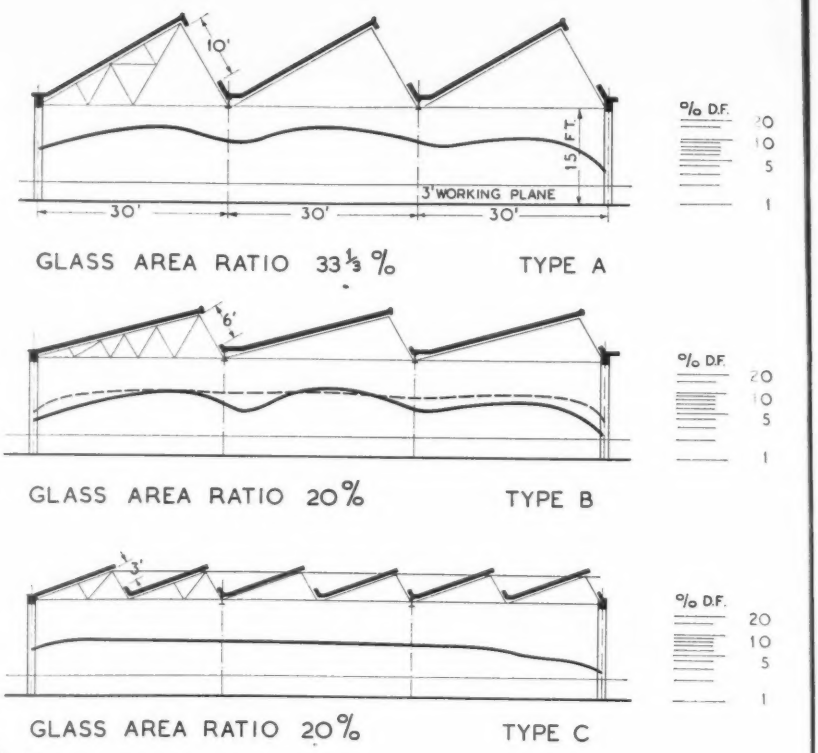


Fig. 6

Type 2. Fenestration Orientated in One Direction Only

The north-light type of roof was developed specifically to prevent the penetration of sunlight, and in those workshops where this is desirable the method is probably still the most economical structurally. Most examples of north lighting in this country are based on a 30 degrees to 60 degrees truss, and this means that if nearly all of the 60 degrees slope is glazed the area of glass will be of the order of 35 per cent of the floor area.

Three types of north-lighting are illustrated in Fig. 6. The first, Type A, has one north light of 33⅓ per cent glass area ratio over each bay, and from the distribution curve it may be seen that, although a high level of between 10 and 15 per cent daylight factor is maintained across the greater part of each bay, a rather abrupt fall to about 8 per cent daylight factor occurs under the valleys. The drop may not be objectionable if, in practice, the work benches run in the same direction as the glazing, but if they are set in the opposite direction the variation would be more noticeable.

In Type B the glass has been restricted to 20 per cent of floor area so that some comparison may be made with earlier examples. The curve has distribution characteristics similar to those of the previous section in this figure, but intensities are lower, corresponding to the lower glass area. In the troughs values fall slightly below the 5 per cent level. The curve records a maximum level at the centre of about 10 per cent daylight factor. Both examples show that the level of illumination is comparatively very low on the periphery of the building. The broken line on Type B enables a comparison to be made at this stage between the efficiencies, from a daylighting point of view, of the north-light system and the previous arrangement in Fig. 3, Type C, for a double-pitched roof. Clearly the double-pitched roof scores on both counts of uniform distribution and high intensities, and only the peaks of the curve for the north-light distribution reach similar high values.

An analysis has been made in Type C (Fig. 6) of a roof which has two north lights over each bay, instead of the one, making up the glass area ratio to 20 per cent. The distribution curve loses the 'gallop' which characterizes the distribution from the other north-light systems and is remarkably flat. At the centre the daylight factor is of the order of 8 per cent, a value which could be easily maintained across a wider factory. The indication is that as a general rule a larger number of small north lights is far preferable to comparatively few larger lights having the same total glass area. The case shown compares favourably with the previous best lighting from a double-pitched roof.

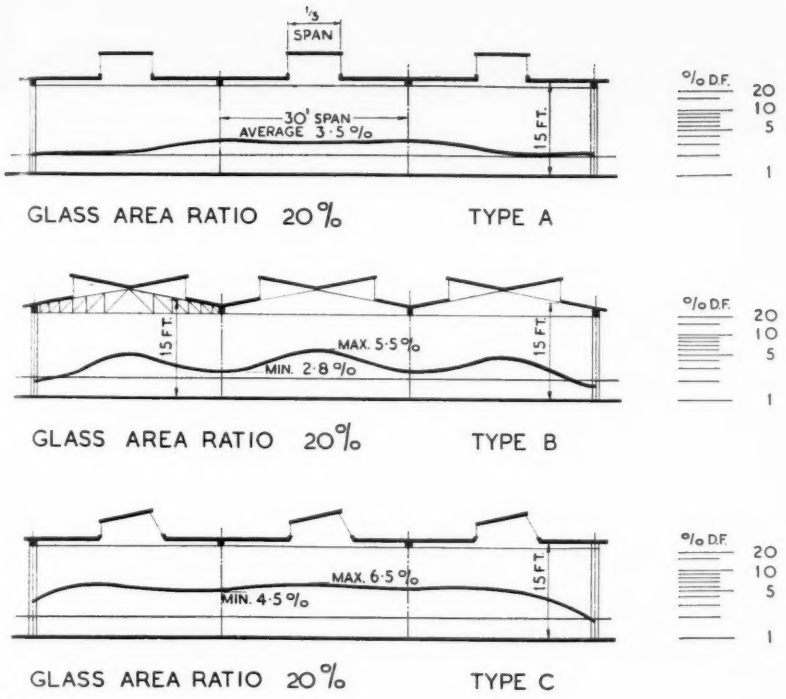


Fig. 7

Type 3. Monitor Roof Lighting

In America the monitor roof seems to have largely taken the place of north-light or sawtooth roofs. It has been almost overlooked in the past in this country. During the war, however, the possible merits of vertical roof fenestration were given serious consideration because of the limitations imposed by Air Raid Precautions. For example, the arrangement made 'blacking-out' a comparatively easy operation, it minimized glass breakages from falling splinters and made the exclusion of wind and rain when the glazing is broken far easier than with glazing on sloping roof surfaces. Fig. 9 shows a typical monitor roof.

Wartime requirements aside, the system has certain other commendable features. Thus glass cleaning is straightforward, not involving special gantry equipment, and, if opening lights can be suitably arranged, the inside face of the glass may also be cleaned from the outside. Because the glass is vertical the periods between cleaning can probably be larger, and the opening lights involve no problem of weather exclusion when open, unlike glazing at a slope. On the other hand, the general level of illumination is low compared with other systems considered. This may be seen by the distribution curve on Fig. 7, Type A. Values under a 20 per cent area of glass never rise above 4 per cent daylight factor and fall gradually in the case illustrated to about 2 per cent daylight factor. The monitor will give satisfactory results only if a succession of such lights is used and then, over a large area, a very uniform distribution of light will result.

The width of the monitor has a critical effect upon the distribution and, within limits, the monitor should in most cases be quite narrow. The glazed areas are then brought nearer to the areas between the monitors so increasing the illumination in this region. Fig. 7, Type B, shows this clearly, for when the width of the monitors has been doubled, a strong peak factor of 5.5 per cent occurs under the monitor and between the monitors it falls to a minimum of 2.8 per cent. Particular care should also be taken to avoid obstructing the daylight by roof overhangs or projecting gutters. These may seriously diminish the light immediately beneath the monitor. If it is desired to reduce the more marked effects of sunshine penetration, monitor lighting should be laid out on a north-south axis. A good proportion of high-angle hot noon sun will then be excluded and early morning, late afternoon and winter sun comes at a flat angle which may prevent rays hitting the working areas.

A modification of the normal monitor is shown in Fig. 7, Type C. It was originally developed at the Building Research Station to exclude sunlight without appreciably reducing the daylight. Small louvres are fitted to the vertically glazed side of the monitor to trap the sun's rays and most daylight is received from the larger area of sloping glass. Maximum intensity is of the order of 6.5 per cent daylight factor which falls to a minimum factor of about 3 per cent against the walls. An average of about 5 per cent daylight factor could be maintained across a wide factory and the intensity variation would be slight.

Fenestrating Large Span Structures

So far, the fenestrating of only the more common forms of factory structures has been considered. In a study of this nature, however, some attention should be directed to the daylighting of the kind of factory where provision of a large and unobstructed floor space is an essential in production. For example, such a structure would be needed for assembly of large aircraft or for smoother production flow and greater flexibility for a factory in which the process is likely to be changed at some future date. The requirements for daylighting may impose limitations of a free choice of possible structures or, conversely, the structural arrangement which is to be used may limit the method of fenestrating. Thus, in the case of shell concrete construction, which is eminently suitable for covering extensive areas, the thin skin of reinforced concrete is structural and may not be pierced with impunity, and the following rules will generally apply.

1. For single large spans the tendency should be to distribute the glazing in comparatively small individual areas as in the dome of Fig. 8, Type A, rather than in large single panels which would break the structural continuity of the system. Alternatively, if the shell is formed in a vault, the glass may be arranged in more or less continuous narrow strips which follow the roof curve as shown in Fig. 8, Type B. In both cases the daylight distribution is very even and intensities high (above 8 per cent daylight factor).

2. For more than one span the shell is often designed as a series of balanced cantilevers as in Fig. 8, Type C, in which case a wide strip of glass running continuously down the crown of the vault is permissible. The distribution curve in the figure indicates that maximum and minimum factors of the order of 15 per cent and 9.5 per cent respectively are to be expected under a series of such roofs.

The Quality of Daylighting in Factories

In factories the occupants are not usually free to move from inadequate light to a place where it is better. The provision of sufficient light which is uniformly distributed over the whole working area is therefore the initial step in designing for good lighting. Unfortunately, the relative ease of measuring the quantity of daylight has frequently tended to confine interest to this particular aspect of the matter. Adequacy is not, of course, the primary criterion of good lighting. What is really important under actual working conditions is whether our eyes can take good advantage of the light which is available. In particular, if the brightness ratios in the visual field are unsatisfactory the retina of the eye will lose sensitivity, and vision will be both less satisfactory and less comfortable, and it is quite possible that a high intensity on the work will not yield such good vision as would a much lower intensity in better general surroundings.

The chief factor to be reckoned with, particularly when considering the design of the environment as a whole, is that the

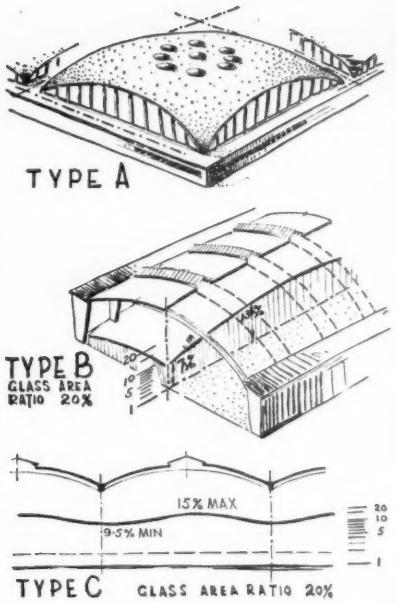


Fig. 8

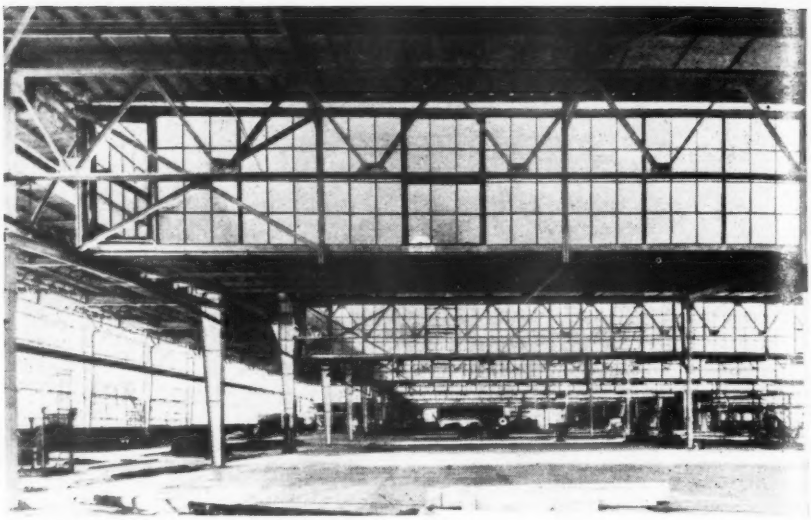


Fig. 9: A monitor type roof in a large American factory

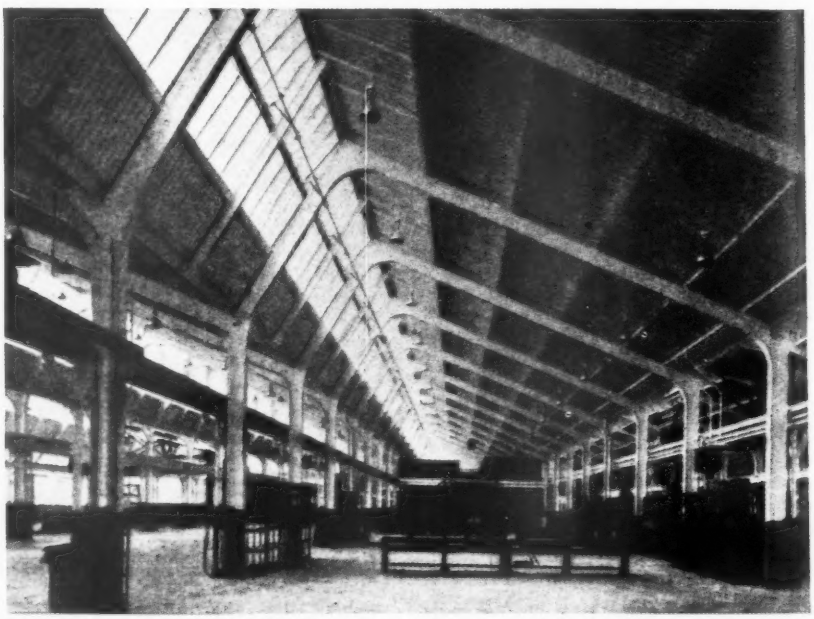


Fig. 10: A north-light roof which illustrates that by reducing brightness contrasts around the window areas, the glare normally associated with this kind of roof can be very much reduced

eye cannot comfortably adapt itself to strong contrasts of brightness. Harsh contrasts in the visual field should therefore be kept to a minimum. The strongest contrasts and glare, which is associated chiefly with extreme contrast, are usually to be seen around the sources of light as, for instance, the view of sky through some glazed opening when the area of wall or roof around the opening is dark. This may be just the arrangement which reduces the efficiency of the eyes and causes discomfort. The cure for the trouble is to ensure that the brightness differences are not large, by surrounding the windows with light-coloured and well-illuminated surfaces. Certain forms of fenestration are much easier to treat than others Both the north-light and the monitor roofs are, by the arrangement of their roof planes, less glaring than any of the other types because the undersides of the roofs surrounding the glass can either be illuminated directly from the sky or can receive light by reflection from adjacent external roofs if these are light-coloured.

Fig. 10 shows a very cleanly designed north light where freedom from the glare normally associated with roof lights is apparent. The chief reasons for this condition are probably the *gradual* fall in brightnesses away from the glazing, the general light ceiling colouring and the absence of the usual grid of structural members contrasting against the bright sky. It is a common observation that in a north-light factory the view facing the glazing is usually very uncomfortable compared with a view in the opposite direction when it is the undersides of the roofs which are visible and not the sky. This is what would be expected, for where the bright sky is replaced by a less bright ceiling the condition is bound to present less contrast than the other with just as much light on the work. In certain factories the risk of glare to operatives may thus be reduced by different arrangement of their work benches or machines.

Other methods of reducing contrasts will be apparent, for instance, by allowing the glazing to run to the end walls; thereby surfaces around the glazing which might otherwise be in shadow are avoided. Contrasts can also be reduced if the glazing bars are light-coloured and, as an added refinement, so shaped as to be deep and tapered to a fine edge rather than be broad and flat in cross-section. The latter shape invariably appears dark or black against a bright sky background, giving rise to a bad pattern of strong contrast. The purpose of having a tapered bar is aimed at reducing contrast with the sky by reducing to a minimum the areas on the bar in full shadow and allowing the sides of the bar to be strongly illuminated.

Finally, it should be noted that merely by increasing the amount of light entering a room the general contrast between indoor and outdoor illumination may be reduced and the risk of window glare may thereby be lessened. In many cases this means that if an adequate quantity of light is reached the worst conditions of contrast will be automatically avoided.

Leigh Park Estate

T. L. Marshall

A.M.T.P.I. [*A*], City Planning Architect, City of Portsmouth

FOR SOME years before the war the City of Portsmouth, being situated on a peninsula, was fast using up the land available for expansion of the city and its industries. The only possible area for expansion was the mainland northward of the city, and the City Council wisely decided to take full advantage of post-war legislation in planning this northward expansion as a separate satellite unit, provided with its own civic centre, schools, shops, etc., planned according to the latest ideas regarding neighbourhood units, densities, and the preservation of existing amenities. Of the land available the principal piece consisted of Leigh Park with its house; this, with other portions, was acquired and forms the core of the new satellite to which the name of Leigh Park has been given.

The site covers an area of 1,673 acres, with Havant Thicket providing a further 792, and lies between the proposed London trunk road on the west, the proposed South Coast trunk road to the south, and the existing Emsworth-Horndean road on the east. There will be a traffic circus at each point of the triangle and cross roads and footpaths must pass either under or over the trunk roads. The scheme was evolved after a long study of the sociological basis of town planning, leading to the decision to divide the estate into three neighbourhood units, each to be defined by boundaries formed by public open spaces or main roads and based on a population of between 5,000 and 10,000 persons, with shopping and other accommodation and amenties to meet the day-to-day needs of the residents, while their wider wants will be satisfied in the town centre.

The total estimated population is 22,500, and the number of dwellings 6,644. The areas of the principal use zones, in acres, are: residential, 737·30; schools, 88·90; industry, 53; business, 32·11; civic centre, 20; community centres, 15·14; public open spaces, 261·20; playing fields (chiefly private), 56·08; playing fields for Portsmouth children, 142; cemetery, 23; public houses, clubs, churches, special and undeveloped sites, 103·08; farmland, 93; woodland, 660·38; allotments and market gardens, 35·81; principal roads, 144—a total of 2,465 acres. It is proposed that there shall be a variation in the gross densities of from 4 to 10 dwellings to the acre, but these figures will be reviewed as development takes place and if there is a demand for flats provision can be made for high density development in certain areas.

The planning authority found some difficulty in estimating the numbers of each size of dwelling that would be required, but based their proposals on the assumption that as it was a new estate there would be a higher percentage of young married couples needing a three-bedroom house than would be the case in an old-established town containing more old people, so the tentative basis adopted was 10 per cent of one-bedroom dwellings, 10 per cent two-bedroom, 72 per cent three-bedroom, and 8 per cent four-bedroom; of these, 85 per cent to be two-storey houses, either detached, semi-detached or terraced, 7 or 8 per cent one- or two-storey homes for the aged and the remainder three-storey flats.

In deciding on the number of shops the danger was realized that too few might give rise to monopolistic conditions while too many could unduly reduce the turn-over per shop. The number recommended by the New Towns Committee was in the region of one shop for each 100 to 150 persons; thus the estimated population of 22,000 would call for 146 to 220 shops, and the opinion was stressed that the shops must be available by the time the houses are occupied, otherwise the residents might form the habit of shopping elsewhere and the new shops become derelict.

In the matter of architectural control the New Towns Committee recommended that leases should be granted for houses to be built by private enterprise, with covenants to the effect that the placing, design, elevations and external materials of buildings must be approved by the responsible authority. A further recommendation was that in coming to a decision the authority should be finally advised by one person, as

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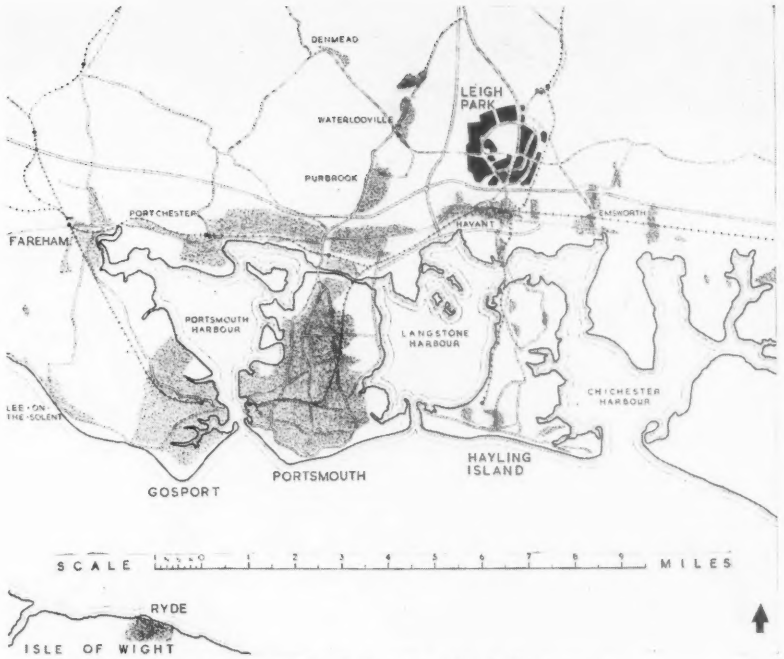
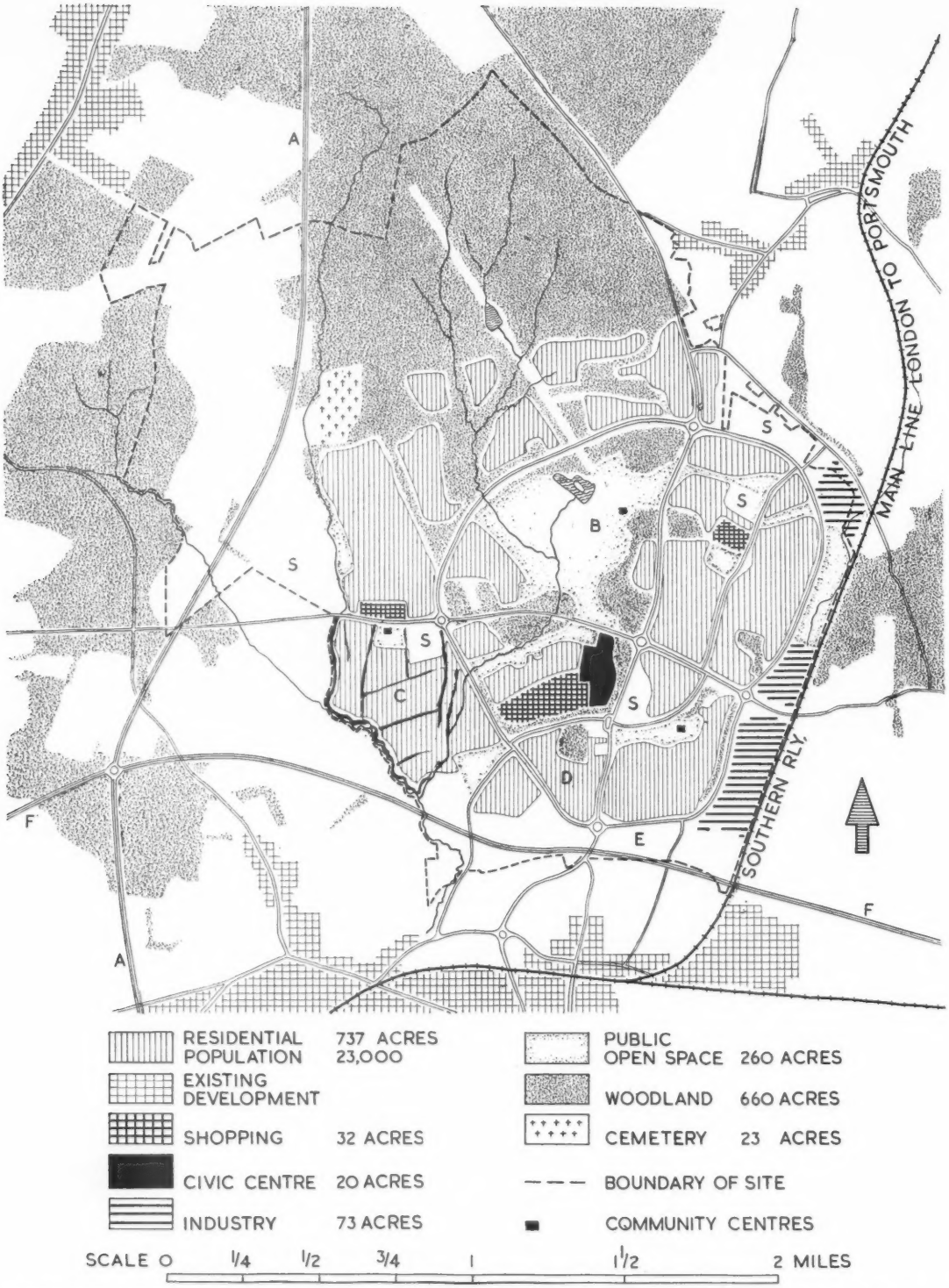
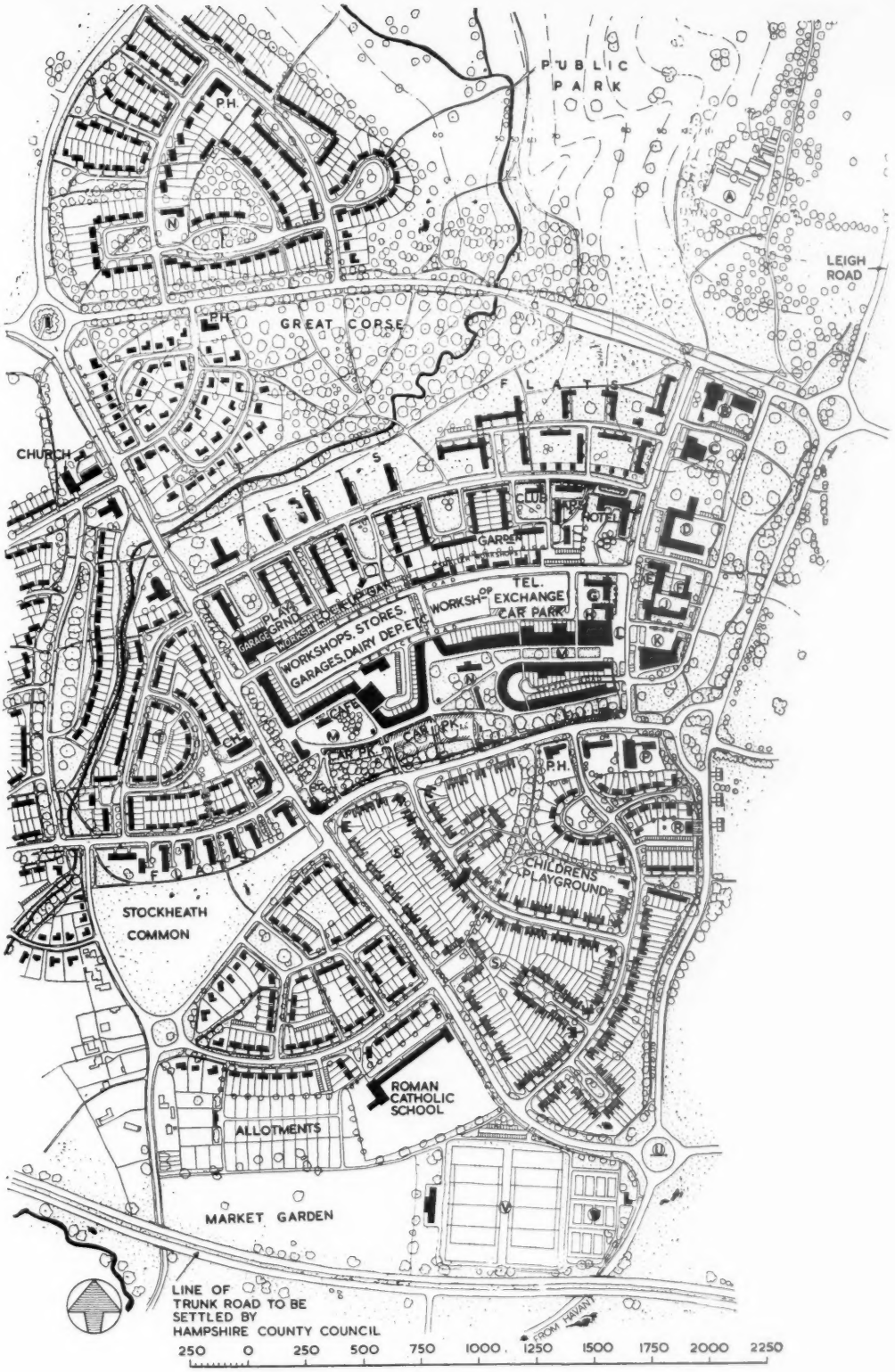


Key plan showing the relation of Leigh Park to the other built-up areas

Leigh Park House and grounds; landscape typical of the site



Above: OUTLINE PLAN. Key: A, proposed trunk road. B, grounds of Leigh Park House. C, first development area. D, houses started. E, allotments, etc. F, proposed trunk road. S, school sites. Opposite page: PLAN OF CENTRAL AREA. Key: A, walled garden and greenhouses. B, Church of England. C, library. D, health centre. E, police station. F, mortuary and ambulances. G, Ministry of National Insurance. H, post office. J, administrative offices. K, assembly hall. L, cinema. M, principal shopping centre. N, nursery. P, Roman Catholic Church. R, fire station. S, houses under construction. T, first stage development. U, town sign. V and W, private open spaces used as Rugby football and tennis clubs


PUBLIC PARK
PH.
LEIGH ROAD
GREAT COPSE
FLATS
CHURCH
CLUB
HOTEL
GARDEN
TEL. EXCHANGE CAR PARK
WORKSHOPS STORES GARAGES, DAIRY DEP.ETC
CAFE
CAR PK.
CHILDRENS PLAYGROUND
STOCKHEATH COMMON
ROMAN CATHOLIC SCHOOL
ALLOTMENTS
MARKET GARDEN
LINE OF TRUNK ROAD TO BE SETTLED BY HAMPSHIRE COUNTY COUNCIL
FROM HAVANT
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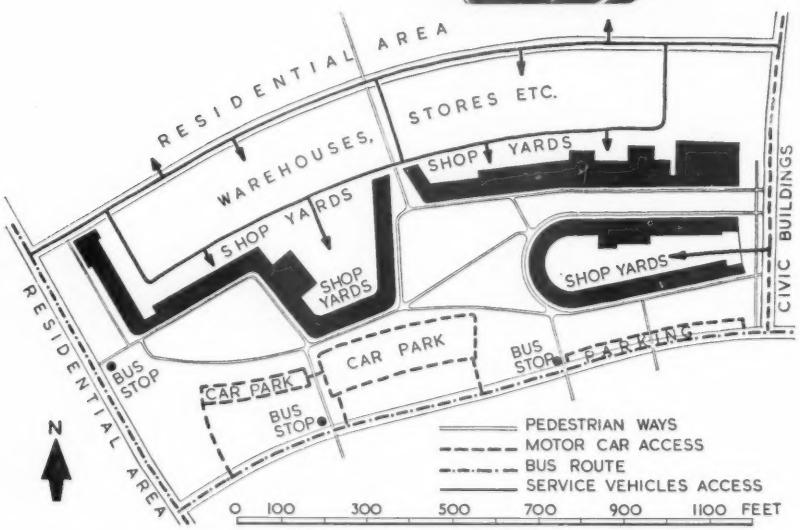
matters of taste cannot be determined by a team, and that such advice should be the function of the authority's chief architect, since the buildings have to take their place in a general conception. Finally, it was agreed, so far as possible, to secure the employment of qualified architects by bodies or persons building in the town.

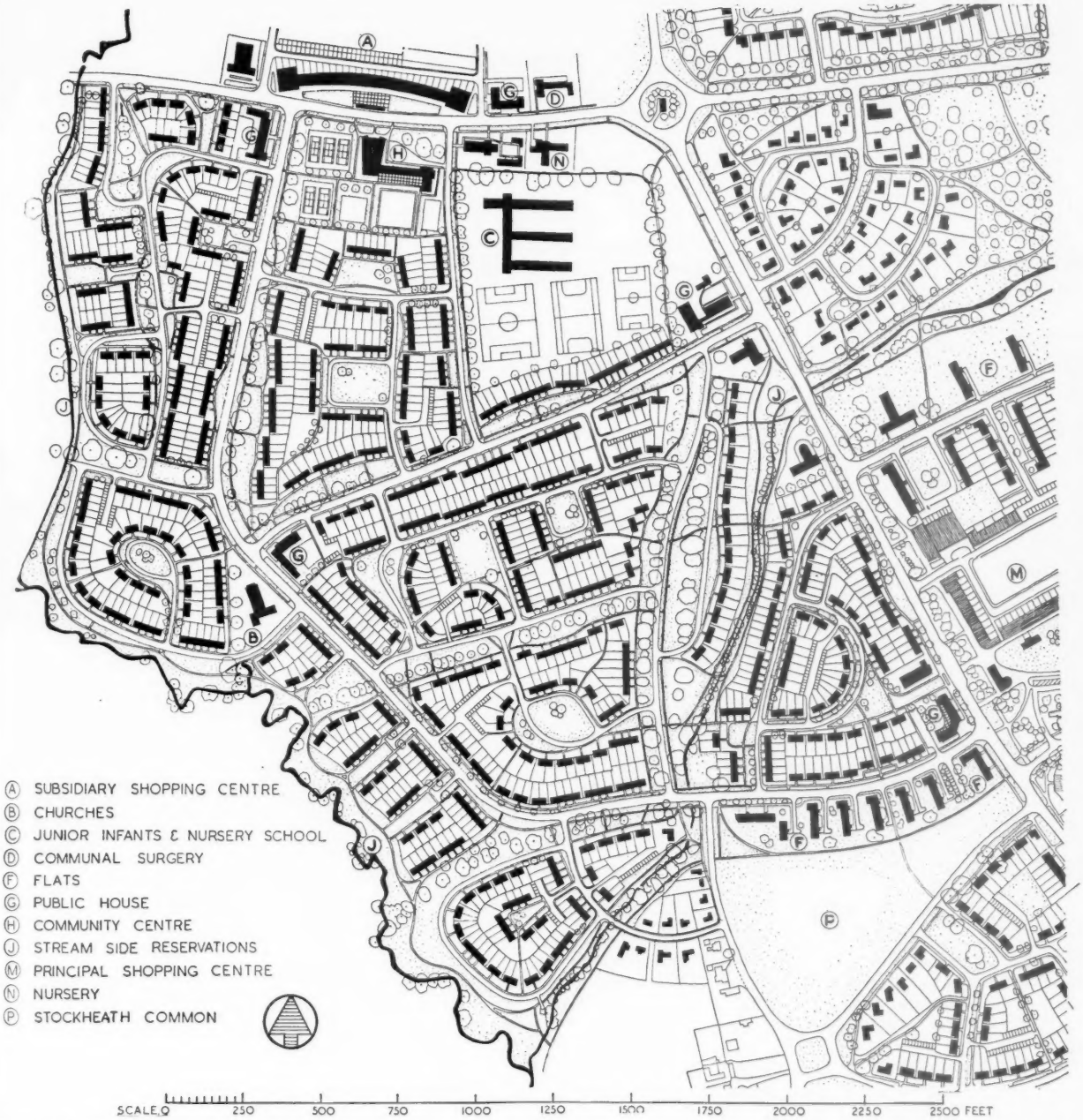
The first development area. On this page, photograph of the model; on the opposite page, the plan



Diagrammatic plan of the traffic lines in the central shopping area showing the relation of vehicular traffic to the shops

Approval for the purchase of the land was given by the Minister of Town and Country Planning under the 1932 Town and Country Planning Act, in September 1943. Planning approval has been given for the two sections where work is now proceeding. Fifty temporary prefabricated bungalows were first erected; these will eventually be removed and the sites used for permanent housing. Work is proceeding on 246 houses by the Havant Urban District Council and some of them are now occupied. Roads and sewers are nearing completion and erection of houses has commenced for the City of Portsmouth's first stage development (plan and model on these pages).

The site of the first stage development has an area of 140 acres and is situated on the south-west part of the estate. This area was chosen because of its nearness to the Stockheath Naval Camp sewage plant which is being adapted to take the sewage of the first 800 houses until the permanent plant is completed. The plan has been largely governed by the desire to obtain the maximum value out of the existing natural features; out of more than 600 trees it has been found possible by careful design to preserve all but five. Particular attention has also been paid to economy in roads and services and to traffic safety; there are no cross-roads, major road junctions have traffic islands and minor junctions are

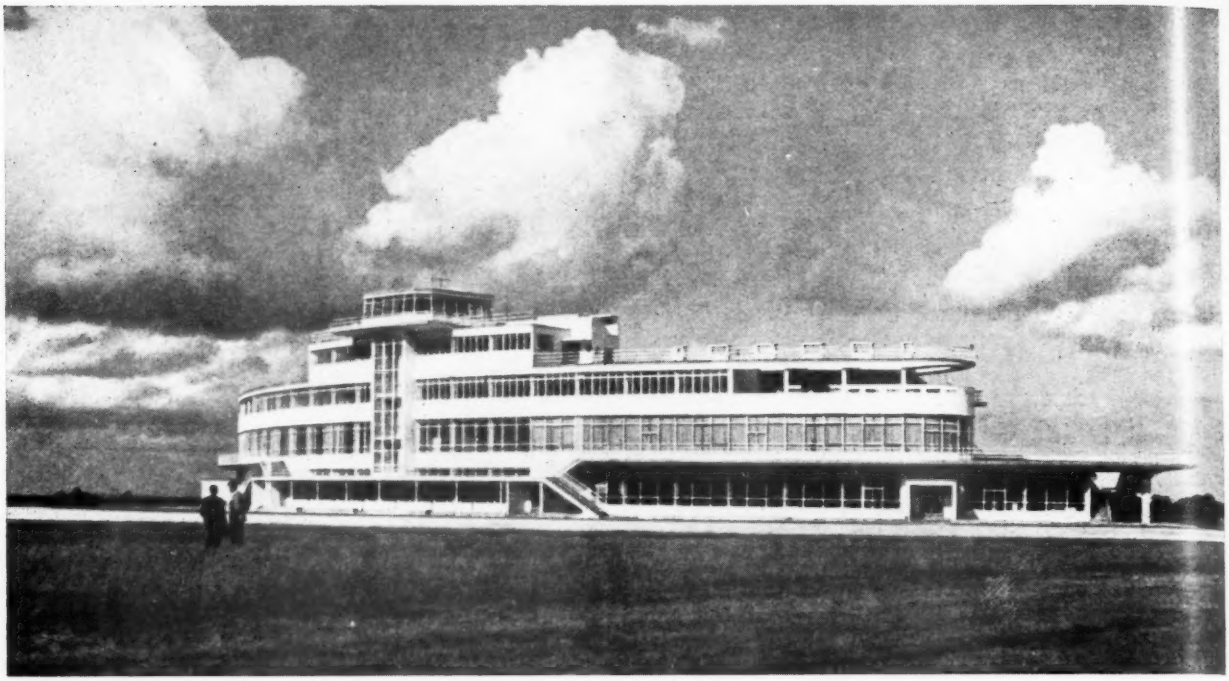

Ⓐ SUBSIDIARY SHOPPING CENTRE
Ⓑ CHURCHES
Ⓒ JUNIOR INFANTS & NURSERY SCHOOL
Ⓓ COMMUNAL SURGERY
Ⓕ FLATS
Ⓖ PUBLIC HOUSE
Ⓗ COMMUNITY CENTRE
Ⓙ STREAM SIDE RESERVATIONS
Ⓜ PRINCIPAL SHOPPING CENTRE
Ⓝ NURSERY
Ⓟ STOCKHEATH COMMON
SCALE 0 250 500 750 1000 1250 1500 1750 2000 2250 2500 FEET

staggered. The resulting layout is informal and open in character with houses grouped round greens of various sizes and shapes, with interesting views over the open countryside. There is to be an independent system of footpaths apart from the roads, following the lines of the streams and linking together the public open spaces, schools and residential areas. The first stage development is about one-sixth of the whole estate and will contain 1,017 houses and various communal buildings as listed in the key on the plan above.

The site of the central area (see plan on page 497) is comparatively level in the south with large numbers of hedgerow trees and a copse. The northern part is hilly, has a stream and is part of the park attached to Leigh House. Stockheath Common (see plan) must remain as common land and there are a few existing houses and an inn.

The principal shopping centre is situated in park land to the north of Stockheath Road, and adjoins the Civic Centre and the Ring Road; it has an area of 18·10 acres, and existing tree groups have been made an important feature. As will be seen from the plan on page 498 the Ring and Stockheath Roads will have bus stops near the centre, and parking spaces are provided for private cars. Goods vehicles will use the service roads at the rear of all shops, while pedestrians can walk from one end of the centre to the other without having to cross a road or being inconvenienced by traffic.

The civic centre lies to the east of the shopping centre and is placed in park land. The various public and semi-public buildings are grouped informally among the existing trees. These buildings are either named on the plan or listed in the key on page 496. There is abundant room for any foreseeable expansion. The possibility of a district heating system for the shops and public buildings is being considered.



The side towards the airfield

Dublin Airport Terminal, Collinstown

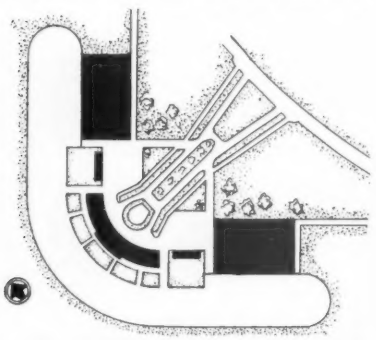
Architect: Desmond Fitzgerald, B.Arch., M.R.I.A.I. [*A*]

COMPLETED IN 1941, this building earned for its architect the triennial Gold Medal of the Royal Institute of the Architects of Ireland. For many English architects who flew over to the first post-war Conference in Dublin it provided a particularly charming and pleasant architectural welcome.

The site plan shows that with the hangars and ancillary buildings it forms the apex of what may be termed a 'rounded right angle'. This plan form is said to provide more parking space for aircraft than a straight line form. The building itself is segmental, the beams and walls being straight between the columns. Following in general terms a manner of design that has now become traditional for airport buildings, the architect has produced, by careful study of internal traffic routes, a plan which works easily and gives good internal forms. The skilful proportioning, good colour and well designed furniture and details help to make the whole building a particularly successful example of its type.

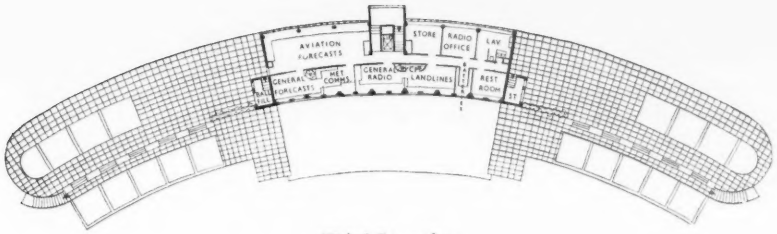
The structural frame is of reinforced concrete, the free-standing columns being circular and the others rectangular in cross-section. The whole plan was based on a dimensional grid of 2 ft. 4 in., the outer columns being spaced at 14 ft. intervals. The floors are of reinforced concrete Tee beams. The walls and ceilings are finished cream coloured and the columns blue-grey. The traffic counters are of walnut and sycamore. The staircases have travertine treads and risers and bronze balustrades.

For the single hangar so far erected Mr. Graham R. Dawbarn, M.A. [*F*] was consulting architect.

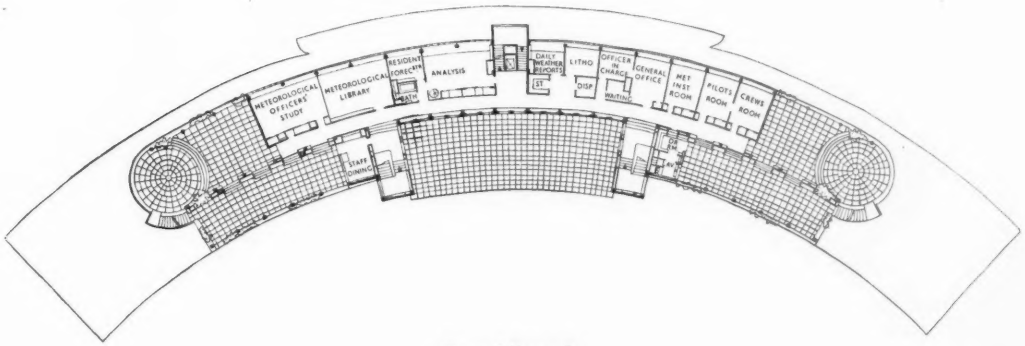


The site plan. Only one of the hangars has been built

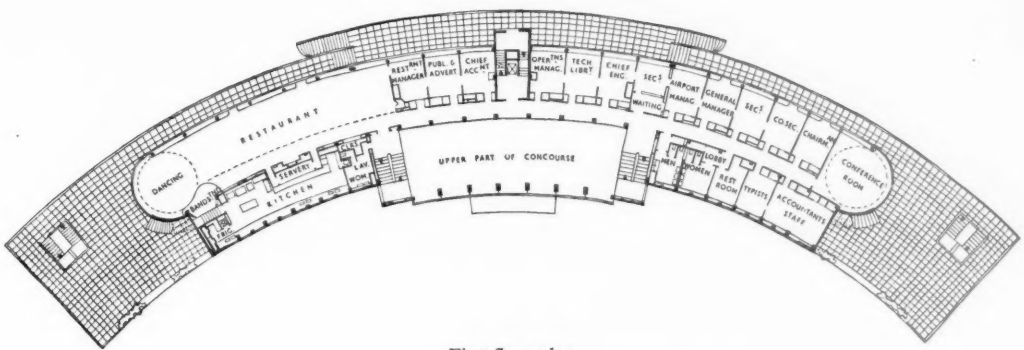
Right: the entrance side of the building seen from the roof of the hangar



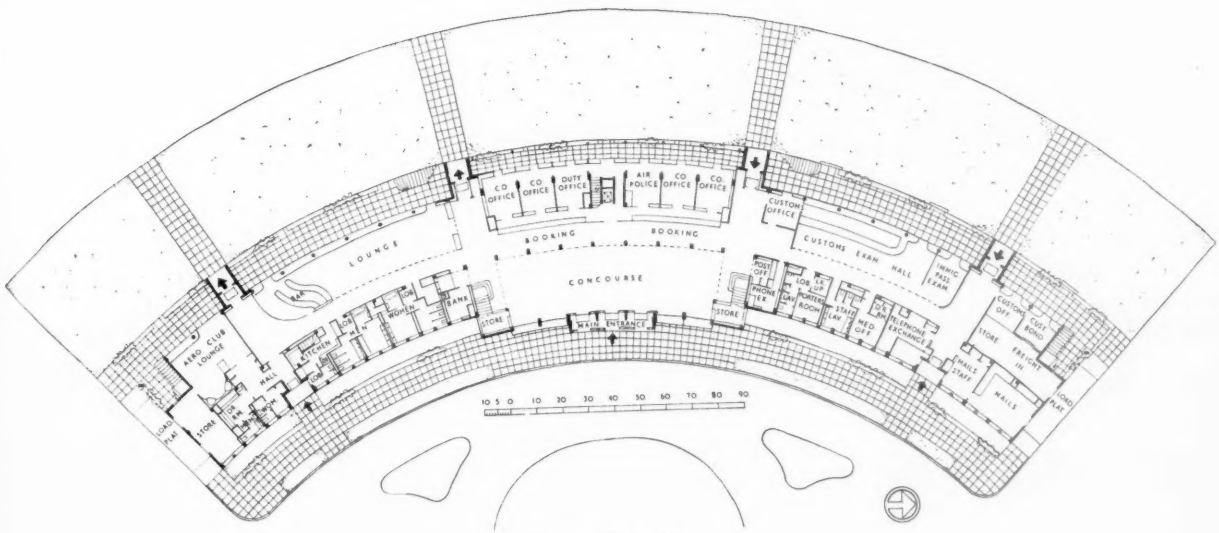
Third floor plan



Second floor plan



First floor plan



Ground Floor Plan

Forty Eight Years at the R.I.B.A.

By F. G. Baker, late Chief Clerk

Mr. Baker's retirement is announced on page 481.—*Editor.*

IT WAS fifty-one years ago that I first came in contact with the architectural profession through the late Mr. A. Beresford Pite who asked my old schoolmaster to recommend him a lad who was 'fond of drawing'. Having lost my father at an early age, I had to seek employment and therefore accepted Mr. Pite's offer and went into his office in Harley Street where he had just commenced practice on his own account after the cessation of his partnership with the late John Belcher. It was here I came in contact with several young pupils and assistants who in due time became well known members of the R.I.B.A. More particularly I refer to the late D. Theodore Fyfe and the late A. C. Dickie—who had just come South of the Border and eventually became Professors of Architecture at Cambridge and Manchester—also to Mr. Guy Church and Mr. J. A. Swan (of Birmingham) whom I am glad are still on the active Fellows list.

Under their kind influence my fondness for drawing was encouraged and in due time I attended classes at the Regent Street Polytechnic under the late George Mitchell and passed my first examination in building construction. Any intention I may have had of an architectural career was, however, abandoned when in September 1900 the late W. J. Locke—the Secretary of the Institute at that time—informed Mr. Pite that he needed a junior clerk, and I was sent to the R.I.B.A. at Conduit Street for an interview which resulted in my engagement, and thus I commenced my career in the service of the R.I.B.A. which after forty-eight years is now being terminated. My earlier experience in an architect's office was not wasted, however.

Those early days bring back memories of many events—not the least being Queen Victoria's funeral seen from a point in St. James's Park, and the subsequent crush against the entrance to the bridge over the lake—the exciting scenes on the relief of Mafeking in the second Boer War—my daily ride to the office on an 'Umbrella' horse-bus along Regent Street—then recognized as the sunniest street in London when the 'sky-line' was still as John Nash intended it to be. I well remember the sulphurous inferno of the Underground Railway and in those far-off days the distress caused to a senior member of the staff at the increase of Income Tax from 8*d.* to 1*s.* in the £! What a long way we seem to have gone since those years of my youth.

The R.I.B.A. Office was a very tranquil place in those days. The total staff, including the Secretary, down to the office boy was eight. No telephone, no typewriters, few Committee meetings—even the Finance Committee only met once a quarter! The total membership including students was just over 2,100. The amazing growth of the Institute during the intervening period can be seen by comparison of the Annual Report for the year 1900 with that published this year.

From an Institute point of view perhaps the most outstanding event in my early recollection was the Sixth International Congress of Architects held in London in 1906, when as a young man of twenty-three I was officially described as 'Assistant Chief Clerk'. Even in these days of great congresses and conferences there has been nothing that has quite equalled the magnitude of that event. The congress membership totalled nearly 1,700, of whom over 700 were delegates from foreign countries and British possessions overseas. I shall never forget the opening day when the Grafton Galleries resembled the Tower of Babel as thirty-four steward interpreters tried to deal with the vocal enquiries of the foreign visitors. Whole trains had to be specially booked to take the large parties to Hatfield, Hampton Court, Windsor, Oxford and other places. I can still visualize the pile of sovereigns and half-sovereigns I had to count as the day's takings for tickets.

It was during the period of his organization of this congress as Secretary that the late W. J. Locke produced his most successful play 'The Morals of Marcus Ordayne' at the Garrick Theatre.

I wonder if any of the older members of the Institute remember Sir Aston Webb's first 'Smoking At Home', when, owing to the attendance of many more guests and members than were anticipated, the cloak room arrangements (entrusted to a window cleaning firm) broke down, and the consequent exciting rush at midnight to retrieve a battered hat and dusty coat from the pile on the floor of the general office and staircase leading to the basement. My vivid recollection of the event is chiefly concerned with the removal at a late hour of an elderly member from the 'wet' bar in the front library, placing him in a 'four-wheeler' and then being admonished the next day for not seeing him home safely.

Looking back over those early years I can recall the faces of many by-gone distinguished members with whom I had the privilege of coming in personal contact—including Arthur Cates—one of the pioneers of the present system of architectural education and examination—F. C. Penrose, J. Macvicar Anderson, J. M. Brydon, George Aitchison and Alfred Waterhouse, the grandfather of the recently elected President. On the other hand, it is difficult to realize that I was sitting at an office desk in the R.I.B.A. when many members who today hold positions of eminence in the profession were either still at school or in their cradles, or yet unborn.

I esteem it my good fortune that my association with the Institute has been during the period of its most active advancement. To mention only a few of the changes, I refer to the formation of the Board of Architectural Education, the revival of the demand for some form of registration culminating in the opening of the Licentiate Class, the absorption of the Society of Architects and the eventual passing of the Registration Acts, the development in the network of Allied Societies and the scheme of Annual Conferences in their provincial centres, the removal of the R.I.B.A. from the inadequate premises in Conduit Street to its present beautiful home in Portland Place. In connection with the latter it may not be generally known that as far back as 1905 the Council at that time seriously contemplated building new premises in Portland Place and, had the negotiations gone through successfully, the Institute would possibly now be still inadequately housed in a building on a former garden site just opposite the B.B.C. Headquarters.

During the whole of the period of Sir Ian MacAlister's secretaryship it was my privilege to be a cog in the machine he so ably guided and to whose wisdom and foresight the present eminent position held by the Institute is mainly due. It would require a far more able pen than mine to record some of the exciting and often anxious periods in Institute affairs—both domestic and as affecting the profession as a whole, and I hope that some day Sir Ian will be induced to write his memoirs—it would make a book of absorbing interest.

I cannot conclude without expressing my deep appreciation of the kindness extended to me by the many members with whom it has been my privilege to come in contact and also to my colleagues on the staff whose co-operation and help in years gone by have been very deeply valued. It is a great comfort to know that in my retirement I carry with me the good wishes and kindly thoughts of so many friends.

Shakespeare on a School Stage

By Hope Bagenal, D.C.M. [*F*]

FOR SOME YEARS now stage designers have turned their attention to school halls, village halls, and various forms of 'little theatre'. They have done so largely out of exasperation at old types of school platform, and also with an instinct for the future and the part that the 'little theatre' might play, and is in fact now asked to play. Richard Southern in *The Scene Designers Requirements in Planning Small Stages* (R.I.B.A. JOURNAL, December 1937) gives a first rate practical summary. He shows, for instance, how a couple of dormers in a cheap pitched roof over stage will give the necessary room for flats and borders, room so frequently lacking. He says also 'Eight feet on either side is the very minimum of practical wing space for the tiniest practical stage'. The British Drama League (9 Fitzroy Square) issued a pamphlet for architects still in print called 'Planning and Lighting the Stage in Small Halls and Little Theatres'—in which Angus Wilson says: 'An apron stage is almost a necessity for school halls and places where Shakespeare is frequently acted and ought not to be less than 5 ft. in depth'. In the same pamphlet Harold Ridge says: 'A plain whitewashed wall may be used in conjunction with coloured lights instead of a back-cloth'. And to this I would myself add that a whitewashed wall, if it extends far enough, can act as a simple cyclorama without having curved ends at top if an ordinary border be used: what matters is not the curved ends but good back lighting.

In 1937-38 Paul Mauger and Arthur May designed and built the St. Albans County School for Boys, and in the hall built a stage, as amply as the programme then allowed, but nevertheless restricted. This stage had a very simple cyclorama, also a fore-stage, and front curtains on tracks. Later two sets of traverse curtains were added. Mauger and I visited an end-of-term theatrical performance soon after the opening of the school, and found to our pleasure, that these simple instruments were used with effect. Since then the school has developed its drama studies and has produced *Midsummer Night's Dream*, *As You Like It*, *Twelfth Night*, *Julius Cæsar* and, recently, *Macbeth*. The producer, Mr. E. W. Foulser, fully supported by the Headmaster, Mr. R. F. Bradshaw, and with the co-operation of the scenic designer, Mr. J. S. Cannell, art master in the school (and, indeed, many other talented people), has in fact built up a Shakespearean tradition. In doing so I know they have criticized their little stage, longed for *space*, wrestled, despaired, improvised; but they have achieved positive results. We have already glanced at the recommendations of the stage experts; here at St. Albans we can learn something from the artists themselves.

The performance of *Macbeth* was remarkable. I had forgotten how well schoolboys can do it. The pugnacity and bloodiness, the naive introspection, the rich oratory, are all of a primitive community and congenial. But also there is the poetry: now and then a ringing voice gives out the *verse*—gives it unspoiled, caught by youth and delivered. Such moments reward old servants of the muses: as I watched I went back many years. And it is odd to think that it was some boy who first did Lady Macbeth on the stage of the Globe; and Shakespeare must have written the part knowing that such would be the case. So boyhood and its powers stands at the heart of our dramatic literature. And here was a very good Lady Macbeth (N. R. Lewis)—one who could convey ambition and show how to murder. It was a studied part, yet she could give rein to passion and stride the stage. Macbeth (B. A. Rippin) was a spirit overburdened, but grew in stature with his despair. He gave the neurasthenic—he who's conscience could murder sleep—but not the bloodstained barbarian chieftain. Malcolm, Banquo, Duncan, Macduff and the others, filled out their parts and were well heard. The witches were noisy but weird and effective: there was some excellent fighting; we were gripped by the good tale; we were compelled by tragic drama in its own proper mode. Such is my tribute to the players. I pass to the production.

The stage directions in *Macbeth* are terse but sufficiently stimulating: 'A cavern: In the middle a boiling cauldron'. The setting can be in any mode so long as it gives high witchcraft and romance; and here it was well done by fine forms, by colour, and powerful lighting. A cyclorama is, of course, useful for a 'blasted heath' where a lowering sky or red sunset is more than half the picture. The back lighting was screened here by a low profile representing rocks, because there was no lighting trough. Unless there is sufficient

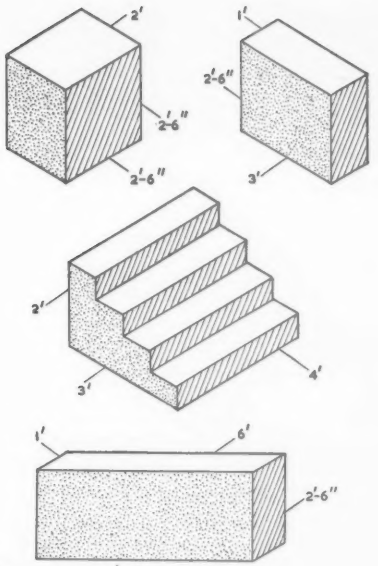
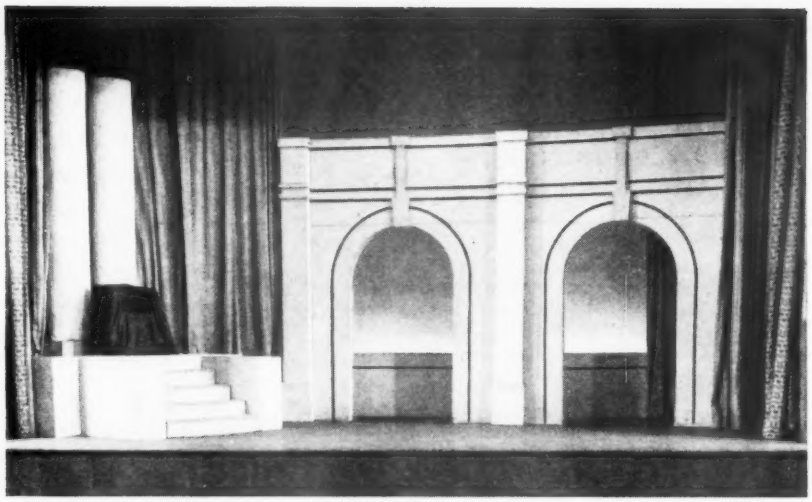
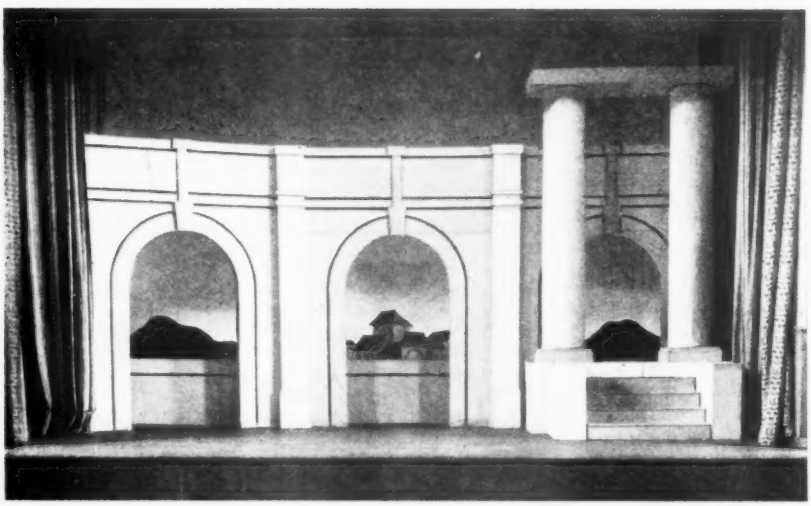


Fig. 1: The smaller scenic units

back lighting shadows may be cast inappropriately on your sky as occasionally occurred here. A good lighting trough for the cyclorama would enable it to be used to floor level, but would mean another 3 ft. of stage depth at least. Angus Wilson in his useful handbook, *Home-made Lighting Apparatus for the Amateur Stage* (H. F. W. Deane and Sons; 4*s*. 6*d*.) makes it clear that back lighting must be as strong as all the front lighting put together, or as an absolute minimum, three-quarters. (This book is actually in print and can be had at the publisher's address 31 Museum Street.)

The cavern scene was done cleverly by a black jagged-edged fore-cloth and by the void of the grey traverse curtains behind, through which the apparitions appeared. Costumes must be hired today because fabric is difficult, which means their colours must be accepted. Therefore, neutral toned scenic units which can be coloured by the lighting are required. The school was lucky in having pre-war curtains: one a neutral grey, 3 ft. in front of the cyclorama, the other, 4 ft. down stage from the grey, a natural hessian, which, when amber lighted, gives an old gold. The scenic units had been specially designed by Mr. Cannell to serve generic purposes and form the basis of the maximum number of scenes. Last time they were used for *Julius Cæsar*; this time, with appropriate modifications, for *Macbeth*. They consist in fact of the elements of architecture—column, arch, pier, stair, and to these are added stock units to serve either singly or combined as parapets, dies, altar or tomb slab. The scale is set mainly by the arched openings, which are 5 ft. 6 in. to the springing and allow free passage for warrior with spear. All units are of light framing covered with canvas painted a neutral tint in keeping with the material represented; those likely to be used for supports having boarded





tops. The smaller units are illustrated with dimensions in Fig. 1.

The arrangement of these units for the Senate House scene in *Julius Cæsar* is shown in Fig. 2. Note the use of the curtains on the two tracks giving two planes. The arched units had to be hinged because of the restricted stairs access for props and the hinges are masked by key blocks and narrow die. The parapet behind serves as a profile to screen the floods on the cyclorama. A clever variation of this same set provided the Forum scene with a rostrum having columns, Fig. 2a. In *Macbeth* an air more primitive is demanded, as in the room in Macbeth's Castle, Fig. 3. The turret stairs lead to Duncan's bedroom. One of the columns now ingeniously forms a newel, and the stairs are made to appear curved. The hinges of the arches are now masked by a shield and by a trophy of arms. At the same time three slabs on the left give a megalithic feeling quite in character: on such *stanes* they could sharpen their claymores. In the Banqueting scene, Fig. 4, by leaving out the centre arch in a series of three bays, and filling in the opening with a deep blue curtain, an effective symmetrical composition is achieved. The curtains behind the side arches are rust red; those on the forward track are the natural hessian transformed by the floods. The powerful side lighting in this scene was most effective. Mr. G. T. Hutton did the lighting with great skill. He had three boards of a sloping desk pattern. These put together were too big for the wings and were placed out in the hall against the proscenium wall behind a screen. From here he could *play* his lights as from a console.

Lady Macbeth's sleep-walking scene is shown in Fig. 5. It is the battlements of the castle of Dunsinane. 'Lo you, here she comes, and, upon my life, fast asleep.' This scene is made up of the smaller elements only, and with the cyclorama illustrates what can be done by these means. A forward curtain is used to throw the waiting woman and doctor in deep shadow. Note the gradations of tone on the units got by the lighting.

Mr. Hutton's lighting was briefly as follows: The equipment is divided into circuits of approximately 500 or 1,000 watts each and consists of the following:

First: Two magazine battens, one front-of-house and one immediately behind the proscenium. Each batten carries four circuits of 500 watts fitted with light blue, primary blue, primary green and primary red gelatine filters. *Second:* Magazine footlights wired in three circuits of 480 watts each, also fitted with filters of the three primary colours. *Thirdly:* The cyclorama is lit from top and bottom by magazines each wired in three circuits of 480 watts. These are fitted with primary red and green filters but using a lighter blue rather than

Top: Fig. 2: The Senate House scene, Centre: Fig. 2a: The Forum scene, both in *Julius Cæsar*, Bottom: Fig. 3: Court of *Macbeth's* Castle, all designed by Mr. J. S. Cannell. Photos: Figs. 2 and 2a: Astor Studios. Fig. 3: Unity Studios

primary blue to obtain sufficient illumination, when using blue alone, for simple sky colourings. With this combination of colours it is possible to obtain general washes of light in a vast number of tints. Lighting the cyclorama in a different colour from top to bottom, and in contrast with the main stage lighting, makes it possible to obtain depth of setting.

To provide directed and localized lighting to the above there was added for *Macbeth* two 500 watt floods, two 500 watt spotlights and one 1,000 watt acting area flood. The latter is used almost vertically and gives a most useful pool of light about 12 ft. in diameter, when hung 17 ft. above stage level. The position of the spotlights was varied during the play. The maximum possible consumption for *Macbeth* was about 11 kilowatts—although this was used once only—for a part of the banquet scene. Lighting on this scale may seem somewhat an undertaking and simpler means can also give interesting results. We must remember that lighting makes a special appeal. It gives some training in art and boys learn the difference between paint colours and coloured light. It is interesting to note that in these particular Shakespeare productions all expenses—scenery, lighting, costumes—are fully covered by the receipts. The play runs for a week.

Since theatrical art is *raumkunst* or 'space art' it is obvious that mere size is significant. Without certain minimum dimensions the play of action and pageant cannot be done. There are times when a good designer will want to open it all out, throw back the proscenium jambs and—as in a grand finale—include all the audience and all the world in one theatre area. The scale of the proscenium opening can be assessed in Fig. 4. Here a scene of some dozen persons comes into a proscenium opening of 25 ft. by 15 ft. This should clearly be a minimum or the players will dwarf the scene. Mr. Foulser would put the fore-stage at at least 5 ft. wide and would prefer 8 ft. The existing 3 ft. is too narrow. A fore-stage is much more useful with pageant doors left and right, or with side openings. The stage at present has wing space of only 6 ft. He badly needs more, say, another 4 ft. The depth of the stage behind proscenium is 15 ft. He puts the minimum at 22 ft. The curtain tracks come 8 ft. and 12 ft. behind the proscenium line; the front line of flats occurs between curtains, the rear line occurs behind the rear curtain track. The tracks curve round and join up in the wings. The grid height should be at least 20 ft. above stage and wings, giving some 6 ft. between grid and pelmet line. Curtains 20 ft. high are satisfactory; if higher are too costly. From his general experience, and that of Mr. Cannell, he would recommend a plan giving curtain tracks and general dimensions somewhat as shown on Fig. 6.

I have to thank Mr. Foulser and Mr. Cannell for their courtesy and for the information kindly given. The photographs of the sets are by the Astor Studios, St. Albans and by the Unity Studios, London.

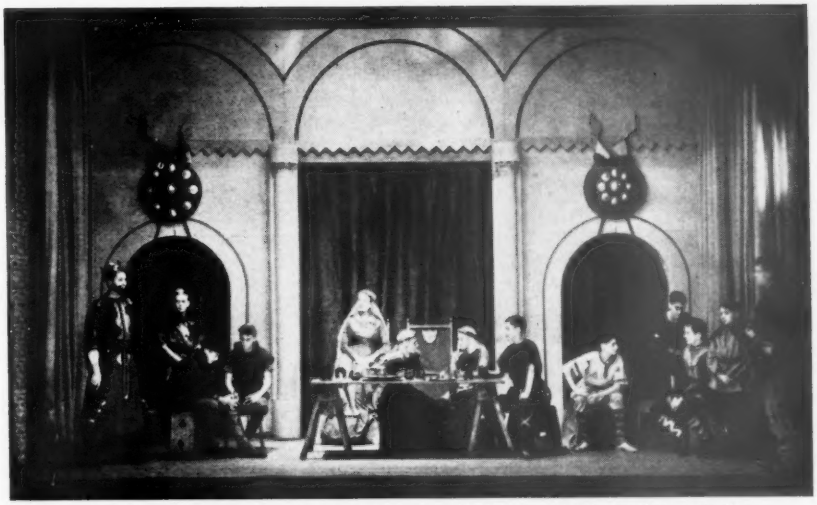


Fig. 4: *Macbeth*. The Banqueting Scene. Designed by J. S. Cannell. Photo: Astor Studios

Fig. 5: *Macbeth*. The sleep-walking scene. Designed by J. S. Cannell. Photo: Unity Studios

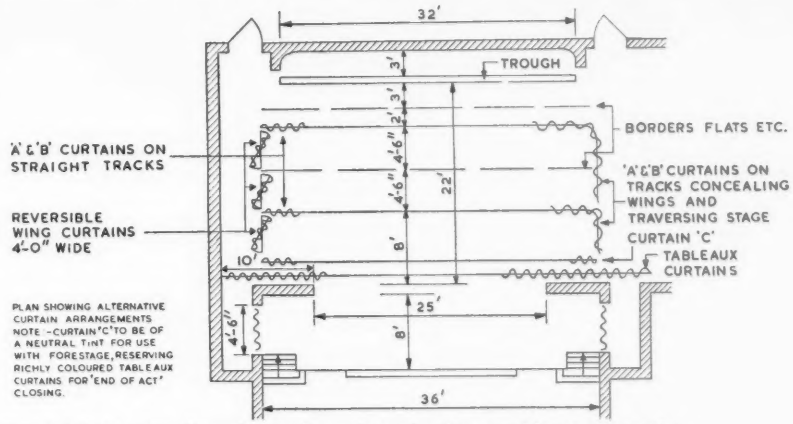
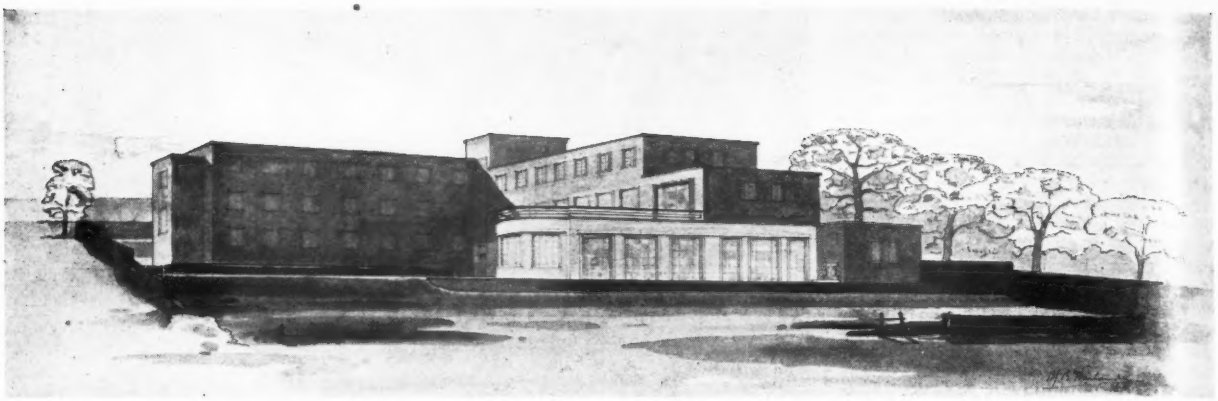


Fig. 6: Suitable plan dimensions and curtain tracks. (See penultimate paragraph.)



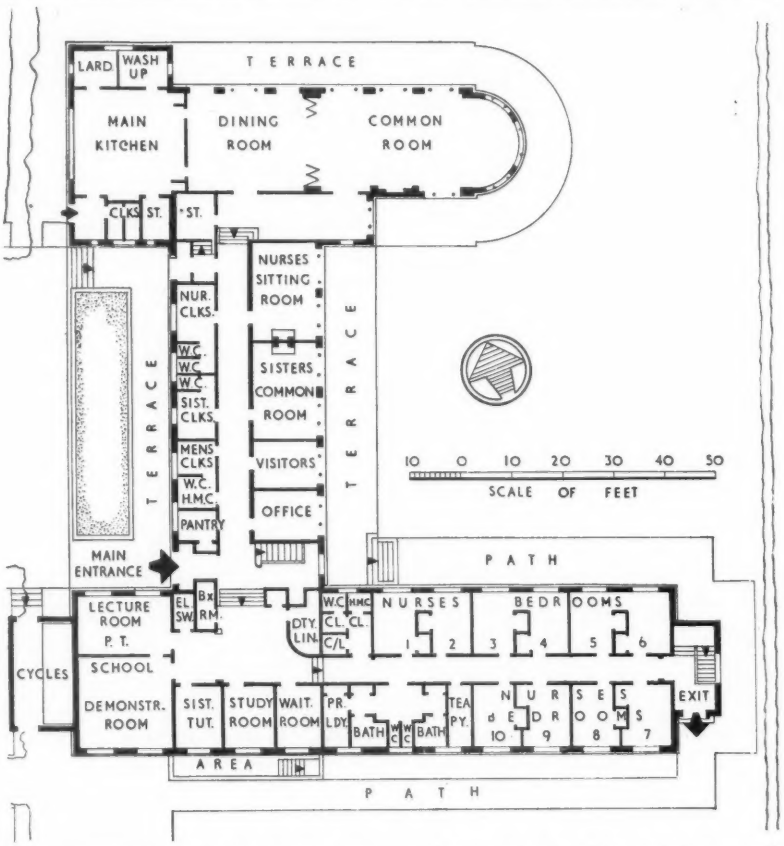
Nurses' Home at the County Hospital Isle of Sheppey

Architects: P. J. B. Harland [*F*] in collaboration with S. H. Loweth, F.S.A. [*F*], County Architect, Kent

THE SKETCH PLANS for a new Nurses' Home at the former County Hospital at Minster on the Isle of Sheppey were prepared in 1947 by Mr. P. J. B. Harland [*F*], in collaboration with Mr. S. H. Loweth, F.S.A. [*F*], the County Architect for Kent.

In view of the impending transfer of this hospital under the National Health Act, the scheme has been referred to the South-East Metropolitan Regional Hospital Board.

The problem of the design lay chiefly in the site, separated from the hospital by Love Lane, which slopes down towards the cliffs and the sea (about three hundred yards distant) giving an uninterrupted view over the Thames Estuary, the aspect being North-North by East. Whilst this view or prospect together with the contours of the land demanded first attention, it was also necessary to give all rooms a share of a sunny aspect. This has been done by placing the main wing containing the nurses' bedrooms parallel with the contour lines, at right angles to which, facing Love Lane, is the secondary wing containing the entrance, offices and sitting rooms, with the sisters' quarters over, all habitable rooms facing east. The lower end of this wing nearest the sea contains the dining and common rooms planned en suite and projecting eastwards, so that a Southern aspect is obtained as well as the Northern prospect overlooking the sea and the shipping in the Estuary. Due to the isolated position of the hospital, the common-room has been designed slightly larger than is usual, and is separated from the dining room by folding doors so that film shows and dances can be held.



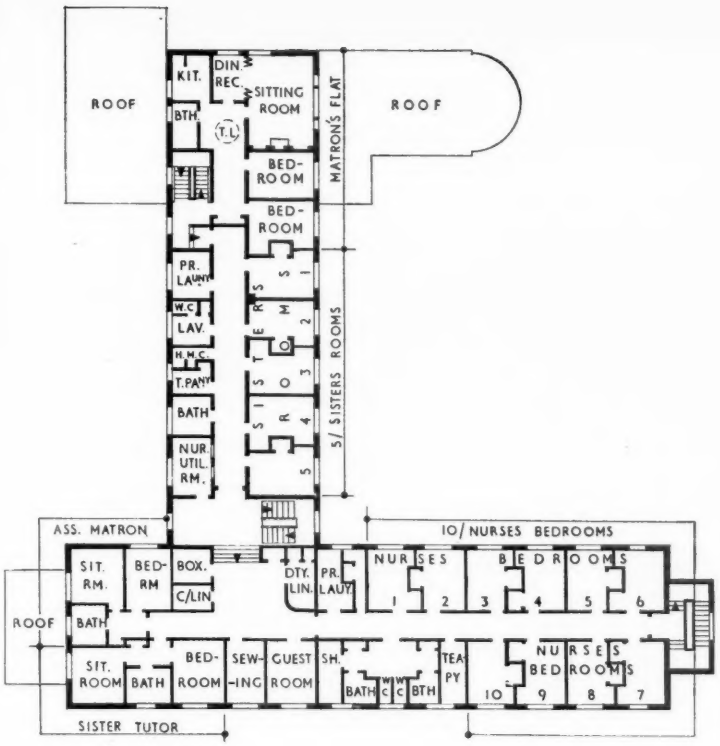
The accommodation includes bedrooms for thirty-five nurses, twelve sisters, bed-sitting rooms, one guest's room, one flat each for three senior sisters, and the matron's living quarters with private entrance. A main kitchen is provided as well as kitchenettes for the staff's own use, together with the usual ancillaries, a special point being made to given the nurses good utility rooms and facilities for private laundry and so on.

Adjoining the main entrance is the Probationers' Training School containing demonstration room, lecture room, study and sister-tutor's office.

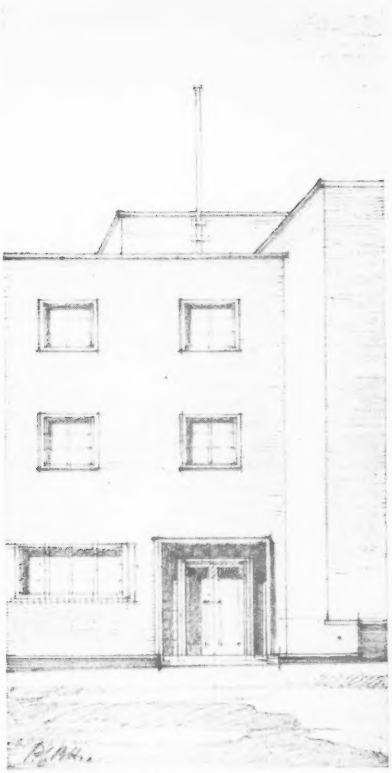
Construction is of fire resisting materials with brick walls and reinforced concrete floors and roofs, the exterior having facing bricks with an economical use of stone dressings and architraves. Windows are to have metal casements.

The scheme for the mechanical services has been prepared by Messrs. J. Stinton Jones and Partners, consulting engineers, and includes heating by low pressure hot water radiators, the boiler room being sufficiently large to store solid or oil fuel as may be determined later.

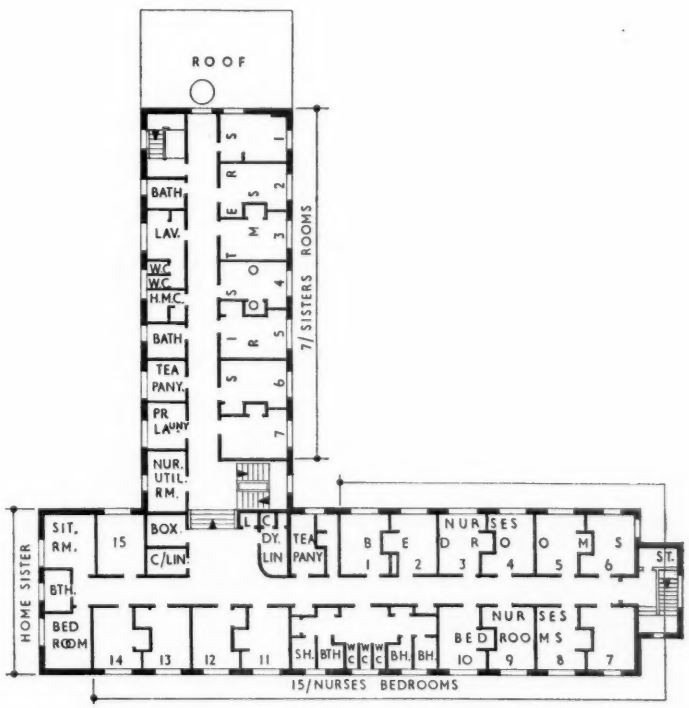
The perspectives are by Mr. P. J. B. Harland [*F*].



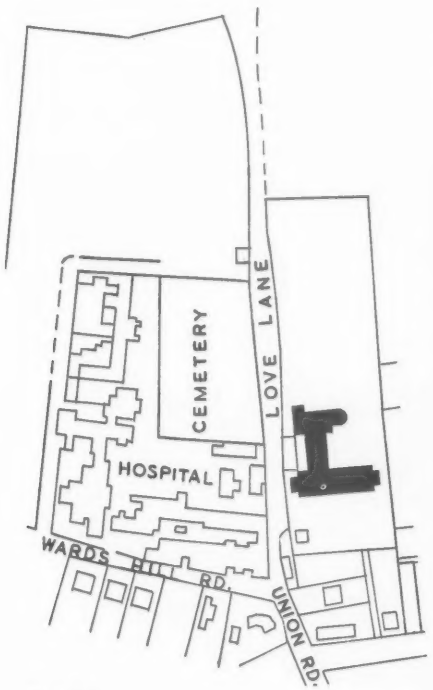
First floor plan



Perspective of main entrance



Second floor plan



Site plan

The Royal College of Art

By Professor Basil R. Ward, Hon. A.R.C.A. [*F*]

THE ROYAL COLLEGE OF ART is undergoing considerable change, and on 15 July 1948 Sir Stafford Cripps, presiding at the Annual Convocation Day ceremony, made an important announcement about its new constitution. On the same day THE TIMES made the College the subject of its daily special article and described the changes generally and called them drastic—as indeed they are. These changes have followed the appointment of a new principal, Mr. Robin Darwin whose plans, based in part on the findings of the Hambledon Committee, received the approval of the Advisory Council set up under the chairmanship of Mr. Josiah Wedgwood. Mr. Darwin took the practical step of getting reports from a number of advisory committees, members of which were drawn from industry and elsewhere.

In view of the interest always aroused among architects by methods of teaching design, the Editor of the JOURNAL has asked me to write this article, giving some account of the new organization at the Royal College of Art and, in particular, of the part which architecture will play in the whole scheme of art training.

The College has post-graduate standing and though it will continue to draw its students from the art schools throughout the country, it is hoped also to draw qualified men and women from the architectural schools and, in addition, students from the building and engineering industries. The College diploma, already highly valued, will clearly gain by a new arrangement of giving a licentiate diploma after the normal three-year course, then full associateship after practical experience in industry.

Industrial arts are vital in our world of today; but it is recognized that the fine arts, painting and sculpture, are essential in the proper development of industrial art so that the high tradition of the college in painting and sculpture will undoubtedly be upheld and carried forward.

There are to be the following schools:—Architecture: Professor Basil Ward [*F*], Hon.A.R.C.A.; Drawing and Painting: Professor Rodrigo Moynihan, A.R.A.; Engraving: Professor Robert Austin, A.R.A., R.W.S., R.E., A.R.C.A.; Sculpture: Professor Frank Dobson, C.B.E., A.R.A., Hon.A.R.C.A.; Engineering and Furniture: Professor R. D. Russell, R.D.I.; School of Fashion: Professor Mrs. Madge Garland; Pottery and Glass: Professor R. W. Baker, A.R.C.A.; Publicity: Professor R. G. T. Guyatt; Silversmithing, Metal Engraving and Jewellery: Professor R. Y. Goodden [*A*], R.D.I.

In THE TIMES special article, the architectural correspondent stressed the critical importance of training designers and stated: 'Ours is an age rich in technical resources but uncertain of itself when it comes to applying them'. He pointed to what is the real significance of the change now being undergone by the College when he referred to the general outlook on design that existed at the beginning of this century when the College took its last important step forward before this one, and he contrasted that outlook with the ideas that are colouring the present reforms. He summed up the comparison by suggesting that the training for the standard of design of the earlier time was from the general to the particular, a 'highly civilized viewpoint that might have served a less complex society', whereas the training now was to be the other way round to fit an industrialized society of hitherto unimagined complexity. Thorough training in his chosen branch of design combined with sound knowledge, gained in appropriate fields such as architecture, will undoubtedly give the student a practical start in his adult life, also a better chance of employment. The policy should increase the probability of improvement generally in standards of design throughout industry.

It is not without interest to the architectural profession that the reforms at the beginning of the century came at the time when W. R. Lethaby was Professor of Design. His work enriched the traditions of the College, was great in its day and is still a potent influence. However, the assessment of the Lethaby period, by THE TIMES architectural correspondent, was it seems a fair one. Far reaching cultural changes have taken place with the kind of rapidity characteristic of our society today, and the outlook of the early nineteen-hundreds is no longer as significant as some would think.

As regards the school of architecture, there appears to be some confusion in the minds of architects concerning its work. There are those who imagine the school to be one of the 'recognized' or 'not yet recognized' schools. It is neither and does not come within the orbit of the Board of Architectural Education. Perhaps it should be stressed that architecture is not taught in the College as a vocational subject and the school syllabus is not in any way arranged to assist entry to the profession, and for some years even before the late war such has been the stated policy. However, the College curriculum and the teaching of the school still showed evidence of a spirit of eclecticism inherited perhaps from the previous half century and led students to attempt general architectural design, without benefit of teaching in subjects imperative to proper architectural training. It does indeed seem that teaching in the school deviated from the line required to implement the general college policy, which clearly was not to provide a vocational training in architectural design but to improve the chances of students of the fine and industrial arts getting a thorough general knowledge of architecture as a cultural subject and as the background and setting to all the arts. Looking back, it might also be said that full use was not made of the school to provide specialized technical training in fields closely touching on architecture, for example, sculpture, or furniture design. Although a new line of teaching was adopted in the school at the close of the late war, opening the way for improvement in the directions mentioned and though a more positive attitude was adopted towards modern day problems, the eventual outcome could only have been of limited scope while the college curriculum remained as it was. For the school of architecture to play its proper part it requires the opportunities now being offered by the reforms within the college. Mr. Darwin clearly considers that the school has very definite and important responsibilities in the educational fields of both the fine and industrial arts, and under his direction these responsibilities are being closely defined through an arrangement which brings the heads of the various schools into close contact.

Readers of the JOURNAL may be interested in a brief outline of aims of the school of architecture. Students from the faculties of fine and industrial arts will first be given a course in the history of architectural design, not merely to make familiar the important styles and periods but to place architecture in its setting of social history. This should give a broad picture of architecture, but it will be arranged to encourage the analytical method and study of first causes. The underlying idea of this part of the work is that architecture is one element in the total configuration of a social culture, but as a physical form it remains a clear and lasting expression of the culture of which it is a part. Particular attention will be given to the main structural principles that have largely governed the physical form of buildings throughout the ages. The fine arts and architecture will be discussed, for example the profound aspect of painting as a source of inspiration and precursor of architecture. Following this general academic course, teaching will deal with the theory of architectural design, in a broad way, then with practice to the extent of helping the student to understand the problems of the practising architect with whom he may later be expected to collaborate. In the later stages of the normal college course, the school will provide some teaching in subjects which are the province of the vocational schools but in which aspects of architecture can be helpful.

There is one special aspect of the school which might be touched upon. Acute modern problems affecting the general welfare of architecture arise out of lack of public understanding of the architect in his work and aims. The Royal College of Art produces a steady stream of men and women who are given sound general knowledge of architecture and who go into many walks of life, some closely and some only very remotely connected with the profession. Furthermore, although the College has long abandoned specific pedagogic training, art-students from it often find teaching in schools, not only of art but of general education, to be valuable in research, in development and in the practice of their arts.

The Architect and the Future Public

By John Gloag [*Hon. A*], Hon. F.S.I.A.

Paper delivered at King's College, Durham University, Newcastle-on-Tyne, on 8 July 1948, before the Northern Architectural Students' Congress

A DISTINGUISHED CRITIC and writer, Mr. John Summerson, has said that today 'the practice of architecture might, with only slight exaggeration, be described as illegal.' But one likes to believe that times of scarcity and controls will pass; and that once again architects may practise in freedom and things may be built that are not just bleakly utilitarian or grimly economical. When that time comes thousands of people, who are now undergoing training to enable them to qualify as architects, will be confronted with the greatest problem that ever perplexes the architect—the client.

Speaking, as I am, to future architects, I cannot attempt to prophesy what sort of clients you may one day have as your personal problems. But, unless you are extremely lucky, I *can* say with some certainty that the clients for whom you work are likely to be largely and complacently ignorant of the art of architecture. You will find that your work is commissioned and judged, liked or disliked, argued about and obstructed by, not the common man, but the ordinary man, who is visually insensitive, who does not comprehend the significance of the things which are seen, and is suspicious of a technician whose type of work is sufficiently familiar for him to feel justified in making comments, and expressing preferences. Many technicians are immune from the attentions of the ignorant, who have an itch to interfere. The work of engineers is seldom disputed by their clients; few people without some technical qualifications can pretend to critical knowledge of accountancy. The work of lawyers is not subjected to unskilled criticism by laymen; and nobody ever dreams of disputing the infallibility of the doctor. Moreover, the medical profession, long skilled in public relations, has evolved a formula which covers every miscalculation that may occur when the knife is used—for we have all heard many times 'that the operation was quite successful, but that the patient died from heart failure'.

The architect, unlike the accountant, the lawyer, the doctor and other professional technicians, whose specialized knowledge is beyond the imagined powers of appraisement of those for whom they work—the architect has constantly to deal with uneducated, and often obstructive people.

Make no mistake about it; whatever the political or economic set-up in this or any country is, or is likely to be, the architect will have to cope with this particular problem, until, in the course of three or four generations, we have repaired the visual and moral ravages of the first industrial revolution, and reformed education so that from an early age the young will be taught to use their vision to observe and compare and to understand what they see, and to cultivate that rarest of all faculties—common sense. We are a long way from that sort of education. Your great-great-grand-children, if they are architects, may practise in an age when the client is really educated and his visual perceptions attuned to contemporary art.

In your professional life as an architect or as an industrial designer, you will constantly bump up against what I call 'The Case of the Director's Daughter,' though, to be sure, in the future at which we are looking, the title may be changed to 'The Case of the Commissar's Daughter'. In an uneducated age, and long after an age in which visual education has been excluded from every grade of school for generations, you must inevitably expect to have an uneducated public; and patronage, where it is in the hands of some pundit in business, who has been to a public school or a grammar school, or from an elementary school has struggled up from the bottom rungs of the ladder to the top, such an one often has a daughter—or perhaps a typist—who knows what she likes. And the most carefully laid plans of the architect, the considered judgment of the man with trained imagination, is set at nought when the daughter of the director, or the managing director, or the chairman, expresses a view. Many disasters in design in this country are caused through the ignorant interference of uneducated patrons. And don't imagine that the future, so rosy and red, is going to be any different. You will merely exchange the director's daughter for the bureaucrat's daughter, or worse still, the bureaucrat's wife.

Will there be a penny to choose between the vast powers of ignorant interference wielded by the female relations of our future commissars and those wielded with such unhappy persistence by the female relations of business men? The trouble is that a man who doesn't know his own mind and finds himself in the position of a patron of architecture or industrial design, so often supplements his own bad judgment by parking the problem on the women of his family—because, he says to himself, after all taste and art and all that sort of unpractical nonsense is a woman's job. Does this sound old-fashioned? It certainly does, and it *is*. But it's true, even today it's distressingly true. The Victorian period is an unconscionable time dying. The hangover of the 19th century will be with us until the end of the 20th. Make up your minds, therefore, to the fact that only your grandchildren, possibly your great-grandchildren, will begin to enjoy an age in which patronage may again be educated, and a public may exist, visually and mentally alert, so that it may be appreciative of fine architecture and will know the difference between good design and bad.

Meanwhile, the estrangement between the general public and the progressive architect remains. There is a variety of reasons for its continuance. The new movement in design is in its way not unlike the New Look for women. The New Look for women is a boon to girls with indifferent legs. The new movement in architecture has been a boon to architects with indifferent inventive powers. That has harmed it. Also it has been turned into a bit of a racket; it has been given a political complexion. It was deliberately labelled by that prince of evil propagandists, the late and wholly unlamented Dr. Goebbels, as part of ' the art of the left'. One of the first things that you must do to win the understanding and sympathetic approval of the future public is to make it clear that architecture is above politics, even as art has no frontiers, and science, up to a few years ago, had no secrets.

When you have made that clear you will be better able to improve the receptivity of the client.

In the explanation of anything use clear language. Many of us are sadly intemperate in the use of words, and we mix our drinks, so to speak—for we mix the technicalities of one profession with another. We borrow the nomenclature of economics and psychiatry; with the result that public speakers fuddle themselves and their audiences with long words, resounding words, important and impressive words, which often mean absolutely nothing.

Every architect in the future, far more than in the past, will have to learn something about public relations. He will have to practise public relations for his own profession, particularly as he will often be working for a collective client, instead of an individual client. The individual client may be an intolerable nuisance; he may be an eccentric tyrant; but the collective client, the committee, the group, the working party, or what have you, may be far worse. There is one thing always to be remembered about committees: collectively they are little better than feeble-minded; but, and this is their salvation, collectively they are terrified equally of work or responsibility. So it comes about that one person on a committee is always landed with the

job of getting the thing, whatever it is, through. Then comes a time when the chairman of the committee, who has got absolutely sick of fluffy arguments and clever evasions, says, 'Well, Ladies and Gentlemen, it seems to me that we should depute one of our number to give effect to our findings'. Nobody quite knows what the findings are—you seldom do on a large committee—but everybody says, 'Hear, hear' or 'Quite, quite' and looks down. The chairman then picks on some willing horse who gets landed with the job, and that willing horse becomes your individual client, who has to interpret you to the committee—you and your work. So you must brief him well and simply. And you must always use plain words.

It is easy to use technicalities; to blind people with science; it's an easy way of shutting them up. But in doing public relations for architecture you don't want to shut people up—you want to open them out. You want to make them receptive, for when they are receptive, they may be sympathetic.

I have used this term 'public relations' several times, so I should perhaps explain a little more fully what I mean by it. The term is variously interpreted, and occasionally the interpretation is coloured by some political or economic faith, distorted by prejudice or fogged by ignorance. Thus you may be told that public relations are directed to masking awkward facts about commercial or industrial enterprise, and keeping them out of the press; or again you may be told that they are used in covering up mistakes, which, if disclosed, would deprive some politician, or statesman, of their spurious reputation for infallibility.

In considering this indirect and generally ill-defined activity called 'public relations', we should realize, no matter to what political party we may belong, or whatever economic, social, moral or artistic beliefs we may cherish for the regeneration of the other chap—I mean our fellow men—that today government *of* the people *by* persuasion has become a recognized and approved practice in democratic countries.

The English-speaking democracies have had considerable practice in the arts of persuasion, and they have acquired it as a result of trading. The English-speaking democracies are trading nations. They produce goods; and when goods are produced in abundance, the pace of consumption has to be maintained. Goods have to be sold, as every trader knows; and ideas have to be sold too, as governments in democratic countries are beginning to discover. Manufacturers and distributors of goods, and organizers of services, know that there exists an inert, obstructive, amorphous influence which they call 'consumer resistance'. Collectively, consumer resistance may destroy months of careful planning by some industry, unless that planning has been preceded by market research, which has secured the information that has enabled those responsible for designing and producing the goods to know, not what the public wants—that is almost impossible to discover—but what the public is likely to accept.

The mitigation of consumer resistance, the stimulation of consumer demand, and the expansion of consumer acceptance, may be partly accomplished by properly planned propaganda, where goods, services or ideas are being sold, and that propaganda may include advertising, display material, and so forth, and public relations.

When the architect is today dealing with his client, he is really selling ideas; he is selling the new movement in design; and he is to some extent obliged to study the technique of persuasion. There is nothing derogatory about studying the technique of persuasion; and it will be more than ever necessary with the sort of public and the sort of clients you, as architects, are going to cope with during the rest of this century. Again, let me repeat, try to win the sympathy of your clients and talk to them and write to them in simple, non-technical language.

Do not imagine that your responsibility to architecture stops when you have dealt with your client; your responsibility for public relations remains. Never refuse an invitation which gives you an opportunity of speaking about architecture or explaining its significance to the community.

Because you avoid technicalities and use simple language there is no need whatever to suggest that architecture is a non-technical subject, and that anybody is capable of judging it. Because so many dreary people are talking about this being the century of the common man there is today a strong tendency to minimize the importance of the technician and the specialist, to exalt the judgment of the ordinary man, and to assume that if ordinary people cannot appreciate what the architect or the industrial designer produces, then the architect or the industrial designer is a highbrow and virtually an enemy of the people. Fight that nonsense wherever you find it. It has political roots, and architecture, as I have said before, is above politics.

The architect has always had to fight for his good work—even when the client was an educated patron. There were plenty of snags even in that Golden Age—the 18th century.

Most people who look at the past see only the pleasant bits. If they attempt the exercise of putting themselves into some period of history which may appeal to them, they usually see themselves as one of the fortunate, unless they have elephantiasis of the social conscience, in which case, of course, they take a masochistic delight in putting themselves in the place of the unfortunate.

We have grown so optimistic about the future that when we look ahead, we are tempted, particularly if we are budding technicians, to regard ourselves as one of the bosses, who will be running the show, and telling the other chaps what to do, and what not to do.

But you won't be able to dictate—not unless you're in a totalitarian state, and only then if you're the head man. You are committed in a democracy to the hard way—which is the way of demonstration and persuasion. You will be dealing with ordinary people, so perhaps you will forgive me for mentioning some quite elementary things, but things that are often forgotten. Remember, ordinary people cannot read drawings. Ordinary people will admit that; but you will seldom find that ordinary people, when they are collectively assembled in committee, will admit that they are ignorant of anything. You see, they must go on pretending to each other, and they can't let the party down by any individual admissions of ignorance. So a committee will pretend to understand drawings, unless, of course, they happen to be an exceptional committee. I have sat on a few committees myself—but there have always been so many architects on them, that, of course, they were exceptional committees. No matter how much trouble it takes, and possibly expense, show your clients your work in three dimensions. Show them models. Preferably, models that you can take to pieces, so that they can understand, floor by floor, what plans mean, and block by block what sections mean. Present your work so that your clients find it easy to grasp, and be completely honest with them about external appearance.

I am assuming that no man or woman here, when they practise architecture, will revert to the production of classical architecture, but that instead they will inject new life, new thought and new *wit* into the new movement in design. You will have a difficult task during the next twenty years; though not so tough as the pioneers had in the nineteen-thirties. Towards the end of the nineteen-fifties and in the nineteen-sixties and seventies, the characteristic architecture of the 20th century should be universally recognized, even in Britain. By that time some new technique may have made all these ideas, now still young and exciting, seem as out of date as the Battle of the Styles, which rocked the architectural profession to its foundations a century ago.

When I say be honest with your clients about appearances I mean just this. For years modern architecture has been brilliantly photographed. The photographic fathers of the modern movement are Messrs. Dell and Wainwright. I sometimes think that those singularly talented photographers have almost created that movement, and I can never quite make up my mind whether they have done it a service or a disservice. Look back through the files of the ARCHITECTURAL REVIEW for the last twenty years and you will find the most seductive photographic records of buildings, sparkling in limpid sunlight, with a few well-chosen clouds diversifying the sky, and an obliging tree or two netting some shadows over the foreground, or splashing them against a great white, bold expanse of wall. In consequence, susceptible people have always thought of modern architecture as something gay and light and exotic, almost tropical—an architecture which appears to have achieved a miracle

by bringing to England the climate of Southern Italy. But the way to look at a modern building is on a cold, wet, foggy November afternoon, or a bleak, raw, wet February morning. Almost any building looks well when it is bathed in sunlight, or covered by snow. And I put it to you, that it is just as unfair and misleading to show your clients pictures of modern architecture, drawn or photographed exclusively in sunlight, as it would be to show them such subjects drawn or photographed exclusively in snow scenes.

Meet in advance the criticisms that I have heard so often; anticipate the man who will say: 'That's all very well when the sun is shining', by telling him something about the external texture and finish of buildings—for most of the modern concrete buildings erected during the last twenty years are pretty shoddy in appearance now, and nearly always because the clients wouldn't run to the additional cost of a surface finish which would have protected them against the ravages of our smoke-laden atmosphere and allowed them to weather agreeably. When you meet such criticisms in advance, when you don't try to gloss over them with skilful perspectives, you are better able to focus people's attention on the proportions of your design, its massing and its functional significance. But, don't dwell too much on functionalism. That hideous word has done infinite damage to the cause of good design. Let the design of your building speak for itself, and if you are a good architect—and if you are not, you have no business to be practising—your design should say more than any words.

Good architecture has to be fought for. It is harder to fight for it today than it was one hundred and fifty years ago, but I think before the end of the century it will be easier to fight for it. I say that because I am an incurable optimist. Despite all our frustrations and disappointments, and the nonstop crises which give our public men such a warm feeling of self-importance, and which so increasingly complicate our private and professional lives, I believe that one day the genius of the nation that could produce Inigo Jones, Christopher Wren, the brothers Adam, William Chambers, John Soane, Charles Rennie Mackintosh and Charles Annersley Voysey, will be splendidly reasserted. Meanwhile the architect has a future that bristles with perplexities, but also with opportunities and corresponding responsibilities.

Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialized branches of research and will willingly answer inquiries.

The Director, The Building Research Station, Garston, near Watford, Herts. Telephone: Garston 2246.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks. Telephone; Princes Risborough 101.

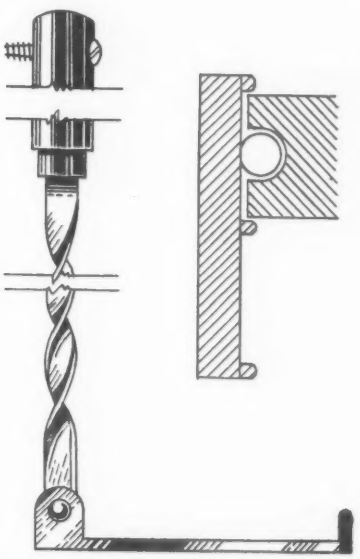
The Director, The British Standards Institution, 28 Victoria Street, Westminster, S.W.1. Telephone; Abbey 3333.

The Technical Manager, The Building Centre, 9 Conduit Street, W.1. Telephone; Mayfair 8641-46.

The Unique Sash Balance. The balancing of sash windows is one of those building items where old methods die hard, although we all know the nuisance, and even danger, of broken sash cords. This has led to the invention of other forms of balancing, and of these the Unique balance is one for which much is claimed. The device is in four parts; an enclosing tube about § in. diameter, a coiled spring within the tube, a variable twisted rod, and a sash attachment. The sash attachment is housed in the bottom of the lower rail of the sash, the twisted rod is connected both to the sash attachment and to the coiled spring, and the spring has a slotted bushing at the lower end through which the rod passes. The point about the fitment is that it fits in a groove in the stile of the sash and is fixed to the brickwork (or other material) of the window opening by a drive screw which, of course, passes through the wood frame, thus there is no need to provide space and timber for the usual weight boxing, so that a narrow trim can be used if desired, and mullions need be no more than 2 in. wide; and in a large installation the saving in timber would be considerable.

The functioning of the device is this: when, say, the top sash is pulled down the twisted rod is also pulled down, since it is fixed to the lower rail of the sash, but as the twisted rod passes through the slotted bush attached to the spring the action of extending the rod unwinds the spring. A feature of the rod is that its spiral twist is not uniform but begins at the top with a pitch of 80 degrees and changes gradually to 30 degrees at the lower end, and so controls and equalizes the tension of the spring to the same amount at each and every point of operation. Before final fixing the tension of the spring can be adjusted to suit the actual weight of the sash. Nothing shows except the enclosing tube, and then only when movement of the sash uncovers it.

The device can be installed after the sashes are put in place, and although it should last without attention for many years it can be taken out and replaced without the usual business of taking off beads and damaging the paintwork that the ordinary balance weight involves. The balance is referred to (though not by name) in B.S. 664, part 2, 1946, and one illustration shows the groove in the sash. E.J.M.A. have also adopted it; and at least one metal window manufacturer is incorporating it in his new design for metal sashes. Two of the fitments are required for each sash and the present price for the set of four is 13*s*. 6*d*. It is manufactured by the Unique Balance Company Ltd., of West Hendford, Yeovil, who started production last December and are now ready to meet demands.



The Unique Sash Balance, showing the balance on the left and on the right the groove in the sash stile enclosing the balance

D.S.I.R. The Department of Scientific and Industrial Research have begun publication of a series of pamphlets, under the general title of National Building Studies, which are intended to provide 'a single and convenient source of information issued by Government Departments on matters of technical interest to the building industry'. They are published by the Stationery Office for the Ministry of Works and the D.S.I.R., the Ministries of Health, Labour and National Service, Fuel and Power, and of Town and Country Planning. These Studies will be in three groups, Bulletins, Special Reports, and Technical Papers. They are to be uniform in style and size, but prices will vary according to length and other factors.

Bulletin No. 1 'Clay Building Bricks', deals with their manufacture, properties and testing, with notes on the efficiency of brickwork. Sand-lime and concrete bricks are not included. The first part deals with manufacturing processes, the second with the properties and the testing of bricks; the third contains notes on the efficiency of brickwork, and information regarding efflorescence. The price is 1*s*. net.

Bulletin No. 2 is entitled 'Painting new plaster and cement', and in the earlier pages discusses the question of decorating new surfaces when some sort of finish is desired before the building has thoroughly dried out, a process that must obviously take time when it is considered that the amount of free water in an ordinary brick house may amount to several tons. An impervious paint coating, therefore, is unwise, and the bulletin suggests distempers and certain types of flat oil paints as being most likely to prove satisfactory; still, there may be defects in the plaster, such as 'dry-out' and delayed expansion, which will cause trouble in the decorative finish. The requirements of individual plasters and cements are summarized under the headings of Portland cement, lime plaster and calcium sulphate plasters. An appendix gives a classification of proprietary and other calcium sulphate plasters, under the headings of plaster of Paris, retarded hemihydrate gypsum-plaster, anhydrous gypsum-plaster, Keene's or Parian, and anhydrite plaster, the proprietary names being printed against each heading. The price of this bulletin is also 1*s.* net.

Only No. 1 of the Technical Papers has so far been published; it deals with a subject that is being given increasing attention these days, namely 'A Work Study in Blocklaying', wherein a description is given of a full-scale experiment carried out by the Building Research Station with the object of investigating the effect on the speed of building when using blocks and bricks of various dimensions and weights, a matter that is of importance in considering the economics of building operations. The Paper gives tables and diagrams showing the results of labour consumption in building with bricks, hollow clay blocks, lightweight concrete blocks, and so on, with the respective costs. It is admitted that making time studies of the productivity of human beings under ordinary working conditions is far from easy, owing to what the Paper calls 'variability of method' and 'variability of pace', but although a large error might be expected, as the assessment of effort rate is based on the personal judgment of the observer, it has been found that such an error does not occur in the case of properly trained observers, comparison being made with observers so trained that they can judge the speed of passing traffic within narrow limits of error. It is stressed that the study is of the job and not of the worker personally, and that the results would apply to any other average worker doing the same work, provided he is using the same method.

Variability of pace, it appears, is the chief difficulty in time study observations, as variations in working rate may occur between different workers and even during an individual's work. This difficulty is to a great extent overcome by two methods, the *unrated method*, in which a sample is chosen large enough to eliminate serious error, the mean value being taken as the timing for the various elements; the other is the *rated method*, wherein a compensating factor is applied to each timing to correct for the deviation from some accepted standard rate of working, the method being based on the belief that there is some recognizable rate at which any job should be done, and that the speed above or below that rate can be judged quantitatively by a trained observer.

Three Special Reports have so far been issued, No. 1 being entitled 'Structural Requirements of Houses', No. 2 'Plumbing in America', and No. 3 'Sand Lime Bricks'. The Building Research Station have carried out many loading tests on full-scale structures; these have been standardized as far as possible and No. 1 Report describes the acceptance standards finally adopted for strength (static and impact) and stiffness, with notes on the test methods. The object in view was to decide the minimum structural requirements that need to be fulfilled, as an unnecessarily high strength is to be avoided in the interests of economy, bearing in mind that it is possible to design houses which satisfy the functional requirements of insulation and weather protection but have a strength less than that of a traditional house, wherein the thicknesses of walls are governed by the degree of weather resistance or thermal insulation required and are ample for the loads applied to the walls. The Report includes photographs of the loading operations, the instruments used, and a table showing the structural requirements for houses.

Special Report No. 2, 'Plumbing in America', has been produced as a supplement to the reports on plumbing and domestic drainage which appeared in the form of Post-War Building Studies Nos. 4 and 26 and were concerned with British practice in those fields, so it was felt that they might well be supplemented with information about foreign practice, particularly in North America, where there are certain features that are in common usage in that country but have not been introduced here to any appreciable extent. A survey of American methods was therefore carried out by an officer of the B.R.S. in 1946, and this Report is the outcome. Section No. 1 deals with domestic drainage and describes normal practice in America regarding drain pipe sizes and gradients, but there one-pipe plumbing is almost universal and so the branch drains are taken direct from the bottom of the stack to the sewer, thus doing away with the need for a local manhole to take connections, although in this country it has been argued that branch drains can be connected direct to the main house drain, because if a stoppage does occur it is cheaper to dig and expose the junction than it is to construct manholes.

There appears to be some difference of opinion in America regarding drain sizes, one view being that 5 in. stoneware (or tile, as they call them) drains should follow 4 in. cast iron house drains because the internal surfaces and degree of uniformity of stoneware piping are usually inferior to those of cast iron. Recommended gradients for domestic waste drains are slower than our text book slopes, varying from 1 in 48 to 1 in 100 for 4 in. and 6 in. drains. Nevertheless, stoppages are rare, except those caused by tree roots of a somewhat curious inquisitiveness, but power-driven clearing tools are claimed to be able to clear away tree roots at distances up to 200 ft., and manholes normally occur at intervals of some 500 ft. in straight lengths.

The section on water supply mentions back-siphonage due to negative pressure in the system, and contamination of drinking water has caused attention to be given to this danger; in the case of washbasins and the like the preventive is to let the outlet of the tap be well above the 'flood' level; but in W.C. pans—especially the forms in favour in America—it is not so easy, and air-breaks are recommended.

Section 7 is headed 'Some Architectural Aspects of Plumbing' and mentions that it seems to be common practice to place the W.C. in a bathroom, since this is regarded as being more economical and hygienic, but then in middle-class homes two bathrooms are more common than they are here. Internal pipes are covered wherever possible, as leakage defects are few. Choice of materials for plumbing is somewhat affected by the American expectation of life of buildings, which is 20 to 25 years.

Special Report No. 3 'Sand-lime Bricks' is a completely revised edition of the B.R.S. special report No. 21, published in 1934. Since then the B.R.S. have carried out a considerable amount of work on this class of bricks, and behaviour in use has been studied. The Report confines itself to bricks made essentially from siliceous sand and slaked lime, with sufficient water to allow the mix to be moulded under pressure and hardened by exposure to steam. Sand-lime bricks were introduced commercially less than 50 years ago, but in 1939 the estimated production was over 200 million. Still, 50 years is not a very long period in terms of building materials, and it has been found difficult to obtain direct evidence regarding durability in practice. The general attitude towards these bricks, at least until recently, is reflected with delicacy by the B.R.S. who—commenting on bricks which have weathered badly and left users dissatisfied—say 'although in such cases the manufacturer may soon fail and cease operations, recollections last longer and examples may remain visible'. However, the Report says that while the use of these bricks is greatest in countries where good clay bricks are not everywhere available, the increasing use of them, even when in close competition with local clay bricks, indicates that they have general properties which compare favourably with those of clay bricks and that for some purposes certain of their properties may cause them to be preferred. As several qualities are made, it is necessary—as in the case of clay bricks—to select the right quality brick for the purpose in mind.

Director of the T.D.A. Mr. Phillip O. Reece, A.M.I.C.E., M.I.Struct.E., A.M.I.Mun.E., has been appointed Director of the Timber Development Association. Mr. Reece has been Director of Constructional Research since September 1946, before which he was Deputy Director of Building Programmes at the Ministry of Works.

Correspondence

EXHIBITIONS AND THE PROVINCES

Sir,—It is often said that London members have a distinct advantage over provincial members in that anything worth while always takes place in London, while members in the provinces pay the same fees yet are unable to attend lectures, exhibitions, etc.

I wish to suggest, therefore, that the following might receive consideration:

There are, in the British Isles—but excluding Northern Ireland—approximately twenty-nine Allied Societies. Would it not be possible, after an exhibition has been displayed in the R.I.B.A. building, for this exhibition to be transferred to a place agreed upon by one of the Allied Societies adjacent to the London Area? That Allied Society receiving the exhibits would pay for housing the exhibition complete and meeting the cost of transferring it after a stipulated period to another Society.

In time the exhibition would visit an important centre within the area covered by each Society and each would have borne only a 'pro-rata' amount of the total expenditure.

I do realize that there are difficulties to be overcome, but on the other hand I suggest that more interest would be taken in the activities of the R.I.B.A. and exhibitions held at Portland Place would be seen instead of being simply read about in the JOURNAL.—Yours faithfully,

JOHN A. WHITTAKER [*L*]

Note by the Editor

All Sessional Papers, Architectural Science Board Lectures and papers read at Conferences are published in full in the JOURNAL. Space restriction naturally limits the numbers of slides that can be reproduced, but an effort is made to reproduce all that are essential to proper understanding of a paper or lecture.

Note by the Public Relations Officer

The Public Relations Committee are, of course, extremely anxious to develop and extend the showing of exhibitions in the provinces. A very effective scheme was in operation before the war when exhibitions which had been shown at the R.I.B.A. were toured subsequently to about fifteen provincial centres. Between 1935 and 1939 these exhibitions were seen by just over one million people. In the post-war period it has been much more difficult to develop the touring side of exhibitions, due very largely to the difficulties existing in many centres regarding suitable halls, and the very greatly increased cost of transport and erection which has made it almost impossible for Allied Societies to contribute financially and equally impossible for the Institute to bear the cost as part of its own exhibition work.

Fully conscious of these difficulties, the Public Relations Committee have now developed a method whereby a major exhibition held at the Institute can be photostatted at a relatively small cost and subsequently toured in a form which is light and easy to exhibit. Starting in the autumn, there will be two exhibitions available under this plan; the first, a copy of the New Schools Exhibition, and the second, a very small exhibition on Housing Layout which was organized in connection with the Housing Conference. These have not yet been offered officially to Allied Societies as there are still a few details to be completed, but they will both be offered before the autumn. If the demand justifies it, two copies of the Schools Exhibition will be available.

These may very well be followed later in the year by a small travelling exhibition dealing with certain aspects of town planning. This also has been developed, because it was found that the 'Building Now' Exhibition, which required 3,000 square feet to show effectively, could only be toured to about three provincial centres. Also, owing to the weight of the screens, models, etc., it will have cost something like £100 per time to transport and erect. The cost of transport of the Housing Exhibition was expected to be in the neighbourhood of £1, and the Schools Exhibition probably not more than £3 in photostat form.

If Mr. Whittaker could suggest, for example, anywhere in the Wimbledon area where the Schools Exhibition could be shown, the Public Relations Committee, I am sure, would be only too pleased to give his application priority.

Practice Notes

Edited by Charles Woodward [*A*]

IN PARLIAMENT. Planning Orders (Registration). Asked if he was aware that an Order made by a planning authority under Section 26 of the Town and Country Planning Act, 1947, was not registrable as a local land charge until it had been confirmed by the Minister, with the result that a prospective purchaser might fail to learn of the Order even though he made an official search in the Register of Local Land Charges; and whether arrangements could be made to overcome this difficulty by making Orders of this character provisionally registrable pending confirmation by the Minister, the Attorney-General replied: I am obliged to my hon. and gallant Friend for drawing attention to this point, although I think it may prove to be more theoretical than practical. Section 26 of the Town and Country Planning Act, 1947, requires the local planning authority to notify the owner and occupier of the land of the fact that an Order affecting it has been submitted to the Minister for confirmation. Furthermore, the common form of requisition for search includes a request for information from the local authority as to any notices affecting the land which may have been served. My noble Friend the Lord Chancellor is in communication with the Law Society on the matter to consider whether this difficulty can be overcome. (31 May 1948.)

War Damage Claims. Asked whether he will consider giving a direction to the War Damage Commission that, in the cases of claims which fall to be dealt with on a cost-of-works basis, they should not seek to exclude from such claims the costs incurred by reason of conditions imposed by local authorities which require the execution of works which did not originally exist, the Chancellor of the Exchequer replied: No, Sir. The War Damage Act specifically provides that the amount of a cost-of-works payment shall not exceed the cost of making good the war damage by reinstating the property in the form in which it existed immediately before the occurrence of the damage. Asked further whether it is not a hardship to some of those who have had their property destroyed when local authorities make it a condition of the licence that extra work shall be put in, the Chancellor replied: That is an extra capital expenditure no doubt, but one cannot vary the terms of an Act of Parliament for that reason. Asked whether, in view of the hardship caused in a large number of cases by the refusal of the War Damage Commission to consider late claims, he will set up a small independent body to review the decisions of the Commission on this point, the Financial Secretary to the Treasury replied: No, Sir. Discretion to extend time limits in particular cases of notification of war damage has been deliberately entrusted by Parliament to the independent decision of the War Damage Commission. The lines on which they are proceeding and will continue to proceed were discussed in somewhat difficult circumstances in the House last Friday and are accurately set out in a letter dated 28 May, which I addressed to the hon. Member for the Sutton Division of Plymouth (Mrs. Middleton), a copy of which I am circulating in the Official Report. As hon. Members will see, the policy is endorsed by my right hon. Friend and myself. (15 June 1948.) (*Note.*—The letter is too long to reproduce in these Notes, but will be found in HANSARD of 15 June at page 251.)

Town and Country Planning. Converted House (Development Charge). Asked under what authority a development charge is payable when a private house is converted into a residential hotel, the Parliamentary Secretary to the Ministry of Town and Country Planning replied: Under section 69 of the 1947 Act a development charge may be levied on any material change in the use of land or buildings. I am advised that in the example to which this question refers there would be a material change of use. Asked further whether it is a fact that a development charge is payable in all cases when a private house is turned into a residential hotel, but that no development charge is payable when a private house is

turned into a block of flats? If that is so, can the Minister justify that, on any grounds at all? The Parliamentary Secretary replied: It depends whether the value of the building when developed exceeds the value of the building when undeveloped. Asked whether the Minister could say, for instance, if a china clay store is turned into three cottages or flats whether a development charge would be payable on that, the Parliamentary Secretary replied: I think I should be unwise to anticipate a decision of the courts in this way. If the hon. and gallant gentleman will put down a question I will consider it. (20 July 1948.)

BUILDING MATERIALS AND COMPONENTS. The booklet Notes to Consumers, May 1948, has been compiled by the Iron and Steel Board of the Ministry of Supply, and is obtainable at H.M. Stationery Office, price 6*d.* post free 7*d.* Appendix IV of the booklet gives a list of products made by manufacturers who receive bulk authorizations of steel or cast iron. Purchasers of these products do not, therefore, require separate authorizations, and local authorities should not issue I.S. Authorization or M Forms (Sheets) in connection with them. The bulk authorizations to the makers of these products are intended to cover all home demands.

WORKING PARTY ON BUILDING OPERATIONS. The first meeting of the Working Party on Building Operations was held on 21 July 1948, and was addressed by the Minister of Works, Mr. C. W. Key, M.P.

The Minister said that the decision to set up the Working Party is not intended as a criticism of the building industry, but it is the view of the Government that no steps should be neglected which might raise the efficiency of the industry, ease the strain on both operatives and employers, and at the same time achieve that high degree of productivity which is so vital to our national economy. The Working Party will not be concerned with the organization of the professions, but it is obvious that they must consider the relationship between the professions and industry. It is for that reason that we have appointed assessors to the Working Party after consultation with certain professional associations. Evidence will be welcomed from any interested person or organization, and offers to submit evidence should be addressed to the Secretary, Mr. W. T. Lewis, Ministry of Works, Lambeth Bridge House, S.E.1.

LAW CASES. Swindon Corporation v. Pearce and another. (Interim Development Control.) In this case the Corporation gave notice to the owner of their intention to prohibit the use of premises for the purpose of second-hand motor vehicle business because that use was 'not in accordance with provisions now proposed to be included in the scheme under which the said use of the land and buildings requires the consent of the interim development authority, which consent has been refused on the ground that such use is injurious to the amenities of the neighbourhood, which is mainly residential in character.' In allowing an appeal by the owner the Court of Summary Jurisdiction considered the reasons which had led the authority to serve the notice, and, particularly, as to whether the use of the land was injurious to the amenities of the neighbourhood. Quarter Sessions upheld this decision on appeal.

The Divisional Court allowed the corporation's appeal from the decision of Quarter Sessions and held that the Justices were not entitled to consider the reasons for the authority coming to the conclusion that it was necessary to prohibit the development. They could only decide whether the conditions precedent to the giving of the notice had been complied with.

(The case is reported in All England Law Reports, 1948, Vol. 2, Part 3, and in THE ESTATES GAZETTE 17 July 1948.)

Jackson, Stansfield and Sons v. Butterworth. (Regulation 56A. Work done without a written licence.) In this case a licence for work up to £35 was obtained by the plaintiffs and additional work was done amounting to £34, but sanction was not obtained for the additional work until long after it was completed. On behalf of the defendant it was contended that the additional work was unlawful and that the plaintiffs were not entitled to be paid for it. The County Court Judge had given judgment for the plaintiffs for £69 and it was from this judgment that the defendant appealed, and the case came before the Court of Appeal on 19 July 1948.

A point arose as to whether an oral licence given by the surveyor to the local authority during the progress of the work for doing the additional work made it legal, and the Attorney-General argued that point. He contended that the Minister of Health had power to delegate to any particular person the authority to issue licences, and the Minister's agent could give oral authority to do emergency work. Circulars which were sent out under Regulation 56A of the Defence Regulations did not require a written licence, and if they did the requirement was invalid as the Minister had no power to legislate.

The Court in allowing the appeal by a majority said that work could be done without a licence up to £12, but beyond that a licence was required. A licence for £35 of work was obtained, but the cost of the work came out at £69, and it was argued that because £34 worth of work was done without a written licence, though one was given later on, the whole work was illegal. The Court thought that the licence contemplated in the regulations was a written licence and therefore rejected the contention that an oral licence which it was said was given by the Borough Surveyor during the progress of the work for the excess was all that was required. Dealing with orders and regulations made by the Ministry of Works, and also circulars which were issued for the guidance of local authorities, the Court said that although the manner adopted was the most convenient and practical system for Government and public alike, that was subject to two qualifications, the first being secrecy and the second being doubtful legality. With regard to secrecy it appeared that at the date of the proceedings in June 1946 there was no means at all open to the public affected by which a private owner, whether an individual or a company, even with the assistance of a lawyer, could, as a right, ascertain what the detailed provisions were which in practice governed and limited his right or effective power to get a licence, nor whether they were legislative or merely administrative. Whilst in our modern constitutional practice delegated legislation is both necessary, convenient and desirable, safeguards are essential, especially that its content should always be preventive of many of those evils which most people have in mind when they speak of 'bureaucracy' with an accent of censure; and where administration is mixed up with sub-delegated legislation and none of the mixture is made public it is really unfair and indeed unjust to the public.

The dissenting Judge considered that an oral licence was sufficient under the regulations and accepted the Attorney-General's contention on that point. The Judge could find nothing in Regulation 56A which expressly or by implication required that the licence should be in writing. There was no doubt that an oral licence was in fact given, and the written licence given after the completion of the work could be taken as confirmation of the oral licence. The Judge did not think there had been any breach of the regulations, though, if there had, it was purely technical and nothing had been done which was opposed to the public interest. He held that the defence of illegality failed and that the appeal should be dismissed. The appeal was allowed by a majority and leave to appeal to the House of Lords was given.

(The case is reported in THE ESTATES GAZETTE 31 July 1948, and in *All England Law Reports*, 1948, Vol. 2, page 558.)

MINISTRY OF HEALTH CIRCULARS. Circular 157/48, dated 3 September 1948, refers to the revised British Standard 449 of 1948, which contains amendments in steel frame design. The Minister recommends local authorities to accept proposals which comply with the new Specification as satisfying the bye-laws. The amendments can be included in a future general revision of bye-laws.

Local authorities should accept steel which complies with B.S.S. No. 15 of 1936 for use in construction in accordance with the new B.S.S. No. 449 of 1948 if they are satisfied as to stability, etc.

The Minister wishes to be informed of any important instances in which applicants for bye-law consent submit proposals based on lower permissible stresses than those in the new Specification, so that he may consider further measures that may be necessary to bring the revision to the notice of the Architectural and Engineering professions and the Building Industry.

Book Reviews

Conurbation: A planning survey of Birmingham and the Black Country, by the *West Midland Group*. 11¼ in. iii + 288 pp. + 15 pls. text illus. + endpaper map. Lond.: Architl. Press. 1948. £1 10*s*.

A proposal to plan a region or a conurbation tends nowadays to be received by town planners with something like defeatism. To secure worthwhile improvements a plan of this kind must usually propose considerable changes—economic, social and administrative. Secondly, its authors must have faith that the changes will in fact be made; otherwise their proposals for executing the plan will lack the power to convince and enlist supporters. The Government may genuinely desire to decentralize a lot of Londoners, but it is hard to deny an extension to a factory that is exporting like billy-oh, and equally hard to build houses, shops and services in a New Town, when equal numbers could be rehoused by building houses alone in the East End.

For these and other reasons one begins to read Conurbation with a mind untroubled by hope, and a first skimming of its facts brings no conversion to optimism. Two million people in 270 square miles, 24 local authorities (6 being County Boroughs), a third of the housing bad, a tenth of the area derelict land—and so on. It is a great triumph for the authors that, as one reads more thoroughly, cheerfulness keeps breaking in until it no longer seems impossible for a very great improvement to be made in a generation. Three main reasons inspire this conversion. The area is capable of solving its problems within its own boundaries. No big change in industrial structure, no long distance decentralization are needed; the major need, in the Group's own words, is a *planned tidying-up* that will use the plentiful undeveloped, underdeveloped and derelict land to reshape each town. Next there is the peculiar vitality and adaptability of the area. One feels that these qualities cannot be confined to business, and will show themselves in planning under the new Act. Thirdly, one must count the West Midland Group themselves as a major asset and the chief guarantee that planning will go forward despite division of prime responsibility between 9 authorities.

One proposal in Conurbation is of special interest to architects. A programme of factory slum clearance is suggested and that local authorities should have powers to see that all new factories are up to a certain standard. It would be very appropriate if this traditional factory area was the first to take a stride forward in this field in the same way as the City of London has recently done in regard to office buildings.

The high quality of the Group's Guide Land Use map must also be mentioned. Two out of its 64 sheets are reproduced half-size in the book. They are a pattern for all the new planning authorities.

H. MYLES WRIGHT [*A*]

An Outline of European Architecture, by *Nikolaus Pevsner*. New ed. 8¾ in. xxi + 238 pp. + pls. text illus. Murray. 1948. £1 5*s*.

Dr. Pevsner's now famous *Outline* first appeared in the 'Pelican' series in 1943 and was reviewed in these pages in August of that year. It reappeared, again as a 'Pelican', in 1945, and has now been republished by John Murray, with important additions, 100 drawings in the text and over 100 plates.

An outline of any large subject is the hardest thing in the world to write well—infinitely harder than the detailed treatment of some part of the subject. In the past 30 years people have written outlines of nearly everything and very, very few of these attempts have stood the test even of the short time which has elapsed since they were undertaken. But Pevsner's outline of European architecture will, I am convinced, prove an exception. For two reasons. First, that the author knows, as few writers in this country know, the *contents* of his subject—the stuff which produces the outline. Second, that a wonderful intuitive capacity for selection gives the book complete artistic integrity. From end to end it is organic, never merely cumulative.

Outlines of architecture could be written from many different standpoints; from the standpoints of sociology, of technology, of economics, for example, though it is doubtful if a departure from any of these beginnings would produce a history of what most of us think of as architecture. Dr. Pevsner has taken the high and central theme of space—of the changing conceptions of space which have emerged in European building from the 6th century to the 20th. Inevitably, the development of this theme involves more material themes, economic, sociological, political. Changes in architectural style are always the accompaniment of some social or religious movement. Thus, in explaining the arrival of English 'Decorated', Dr. Pevsner links it with the trend towards Nationalism manifested by Simon de Montfort's revolt; the succession to 'Perpendicular' he similarly links with the "new plainness" encouraged by the preaching Friars of about 1300. But he never rides this horse too hard. Always it is the resulting pattern, the achievement in terms of space, on which he concentrates his exposition.

There are many features of this book which will be new and, I think, inspiring to students and teachers of architectural history. I will mention only three. First of all, the treatment of the 'classical' phase of Gothic in the 13th Century. It is now quite a long time since continental art-historians abandoned the thesis of structural expediency as the motive force in Gothic evolution; yet in this country the idea is still forcibly inculcated into the student—an idea not only wrong in itself but giving rise to absurd analogies which confuse not only the historical but the contemporary issue. Pevsner's treatment of the problem does not ignore the technical achievement of Gothic but places it justly as a phenomenon attendant on an exceptionally powerful psychological directive.

Then there is 'Mannerism'. This will be a new word for many students of architecture. Used with understanding, it serves to isolate a conception of space belonging to Michaelangelo and his successors, a conception as different from Bramante's as it is from the Baroque unity of Bernini. We can make little of Vignola, Vasari or Ammanati without postulating and explaining their appropriate view-point, a view-point, incidentally, which we have to recognize again in England, in some of the architectural importations of Elizabeth's time and in the early work of James Gibbs. Mannerism is, by its very nature,a difficult style and difficult in analysis. But it is essential to a complete view of our architectural tradition and Dr. Pevsner's elucidation could hardly be clearer.

Finally, there is the growth of what we vaguely know as the modern movement. Here, Dr. Pevsner gives an epitome of the account he gave in his valuable *Pioneers of the Modern Movement*, published before the war, but there are some interesting expansions, too, including a note on the late Frank Pick as the type of the 20th century patron. A criticism I would offer of this part of the book is the omission of the name of Viollet-le-Duc, without whom the story seems to me very much like Hamlet without the Prince. He, surely, rather than Pugin, was the alchemist who produced a workable concept of rational architecture out of romantic archæology, while pioneers like Berlage and Horta took their beginnings not only from his theories but from his designs.

The last illustration in the book is of Charles Holden's underground station at Arnos Grove, 1932, and Dr. Pevsner declines to speculate about the future. He assures us, however, that 'the Modern Movement is a genuine and independent style'. This will be to some (as it is to me) the most questionable statement in the whole book, a statement which will be challenged as soon as the spectacular personal influence of one architect—Le Corbusier—has begun to decline. But contemporary history lies always on the borderline of prophecy. Until we are out of the wood, we cannot see it for the trees; and it is not we but our grandchildren who will enjoy that prospect.

Pevsner's *Outline* is incomparably the best general history of architecture of the Christian epoch available to English students. It does not purport to be written solely for architects, but is written strictly on their level and will be found fairly hard going by the average layman, who, however, is not likely to grumble if he receives it as a Christmas present.

JOHN SUMMERSON [*A*]

Sanctuaries and Sacristies, by *Laurence King* [*F*]. (Church Literature Assocn.) 7¾ in. 19 pp. + pl. Lond. [1948.] 2*s*.

A primer on planning two of the most important parts of a church. The author believes that many mistakes in design would be avoided, if church architects had a wider knowledge of the Liturgy.

Architectural Practice, by *Clinton H. Cowgill, A.I.A.*, and *Ben John Small, A.I.A.* 11½ in. vii + 396 pp. New York: Reinhold; Lond.: Chapman and Hall. 1947. £3 12*s.*

This volume is an exhaustive treatise on architectural practice obtaining in America. It consists of 390 pages, and every phase of the professional man's duties and activities is traversed, beginning with the appearance of the client and ending with the final payment for the completed building. The fees payable to architects can be arranged on a percentage on the cost of the building, on office costs plus a fixed fee, on office costs plus an agreed percentage, on office costs plus a salary, or an agreed lump sum for the whole of the architectural services. Where the percentage method on the cost of the building is adopted, it is fixed according to the type of the building, and ranges from 6 per cent to 10 per cent with 15 per cent for furniture and fittings.

The office organization is carried out on strictly business lines, and the accounting system is very detailed. There are standard forms of agreement between client and architect for either of the above methods of payment, and the agreements provide that the client shall give the architect an accurate survey of the site with grades and lines of streets, contours, rights, restrictions, easements, sewers, gas and electric services.

Drawings and other documents are the property of the client, which accords with English law, and the liability for lack of 'reasonable care and skill' and for faulty design is similar to that pertaining to English architects. It is stated by the authors that many American architects pay for losses for which they are liable before they are asked to do so, and such a practice appears to 'pay large returns in goodwill'. In all but a few of the States of America the right to use the title 'Architect' is controlled, and the penalty for infringement is a fine or imprisonment or both. Such control is justified on the ground that it is for the protection of the public.

The American Institute of Architects have laid down Standards of Professional Practice as high as those of the R.I.B.A. The standards prohibit offers of service without compensation, or the submission of free sketches except to an established client. The architect must not guarantee any estimate of the cost of the construction of a building, and he must avoid exaggerated, misleading or paid publicity.

This book will be invaluable to students and should be of interest to architects practising in this country.

CHARLES WOODWARD [*A*]

Towns of To-morrow, by *Gladys Keable.* (The Christian Looks Ahead Series.) 7¼ in. 95 pp. + 5 pls. Student Christian Movement Press. 1946.

An unassuming and unprofessional book on local affairs. The author diagnoses urban diseases confidently and intelligently, and, if the remedy is wrapped in a sermon, it is at least tactfully administered.

The School Looks Around. A book for teachers about local surveys. By *Elizabeth Layton* and *Justin Blanco White.* 8½ in. viii + 166 pp. text illus. Longmans. 1948. 8*s.* 6*d.*

This admirable book should be re-printed with the title changed to *The Planning Office Looks Around*, and the words 'office' and 'staff' substituted for 'school' and 'pupils'. It is a first-class description of methods of designing and carrying out local surveys for a real purpose.

As it stands, the book is frankly and competently directed towards school teachers. The authors obviously know intimately the opportunities and limitations of school life, and its problems are sympathetically handled, but their long-term purpose is to aid and abet a revolution. 'The need for a fresh orientation in the contents of the curriculum has been underlined in the Spens and the Norwood Reports, and the Report of the Advisory Council on Education on Training for Citizenship in Scotland. It is widely felt that the formal time-table subjects, now usually divided into water-tight compartments, should be inter-related and developed as a whole'. The book shows how the local survey, whilst cutting across academic 'subjects', need not cut them asunder. It can be woven into the curriculum, so that . . . 'Before the end of the survey the boy or girl should have not only a first-hand impression of his local community, but a conception of inter-connection between this and the outside world. He also has a basis for comparison. By seeing, for example, the technique of local building through the ages he can compare these with those of other countries or other regions'.

The list of subjects for survey can stand comparison with a similar list in Circular 40 of the Ministry of Town and Country Planning (Justin Blanco White worked with Max Lock on the Middlesbrough Survey) and the chapters on survey sources, techniques and presentation should be text-book material for every student of town planning. Even planning officers, though they may find it hurtful to their pride to consider themselves as the 'boys' and 'girls' of this book, can obtain much from it that will be valuable to them in carrying out the surveys required by the 1947 Act.

Material for the book was gained from a close study of work undertaken by over 50 schools. Twelve school surveys are described in some detail in an appendix, though these, and the book as a whole, could do with many more illustrations.

If more schools up and down the country undertake surveys on the lines suggested there will be a real chance of a creative interpretation of the terms of the 1947 Act because of the greater degree of understanding and support for the principles of good planning that will have become widespread among the community.

J. TYRWHITT

Basic Principles of Ventilation and Heating, by *Thomas Bedford.* 8½ in. x+401 pp. text illus. H. K. Lewis. 1948. £1 5*s.*

Dr. Bedford is well known in this country and abroad as an authority on ventilation and heating. His latest book is all one would hope for from such an author—a thorough examination of research work up to the time of writing, fitted together in a concise fashion. Those who remember his earlier book *Modern Principles of Ventilation and Heating* published in 1937 will recall his clarity of exposition. This faculty withstands the greater test of his new work which is a fuller treatment of the subject.

An architect may be excused if he fails to follow the author through all the intricacies of his argument. The fault lies with the architect's education, which perforce must omit some subjects and amongst those unfortunately curtailed are mathematics and science. The earlier part of the book, those sections dealing with physiology, would be lost to most of our profession had not Dr. Bedford the knack of summing up clearly and in simple language the gist of the long scientific statements. As the subject moves into more familiar fields, such as systems and appliances, the architect will find the going easier and pleasantly interspersed with anecdotes—all of them new to this reviewer. This is not the only claim of these later chapters, for the subject is stripped of the tedium of detailed technical matter—there are plenty of books to supply that want—and sticks to the claim stated by the title—the *principles* of ventilation and heating.

Although Dr. Bedford is a thoroughly sound exponent of the essentials of the engineering fitments that go to make up heating systems, the greatest asset of his book is that it links these means to the ends they serve—the human animal. The earlier chapters dealing with physiology are a summary of recent research work on both sides of the Atlantic; the reviewer has not seen any such summary before. These chapters are capped by one dealing with the human being—the sensory aspect of man.

It is this that gives the whole book its architectural merit, for here the specialist has aligned himself with the architect in considering the client as a human being with senses and sensations and it is obvious that the ability to see the client's problems in these terms is of more importance to an architect than to know how to check the calculations of heating engineers on pipe sizes or radiator outputs. If this view be taken, this then is a book to include in the curriculum of the architectural schools.

The bibliography is an exceedingly comprehensive one. RICHARD EVE [*A*]

CORRECTION: Book Reviews, August 1948 issue, p. 471.

Under the heading **Spons' Architects' and Builders' Pocket Price Book** the words 'erratum slip' should have read 'revision slip (July).' The word 'erratum' gives a misleading impression of inaccuracy in the original, and the alteration is made at the request of the publisher.

Review of Films—5

The country of origin and date of release are given first. The film is in monochrome unless otherwise stated. The sizes (35 mm. and 16 mm.) are given. Sound films are marked 'sd.', and silent 'st.' The running time is given in minutes. (F) indicates free distribution. (H) indicates that a hiring fee is payable.

New Builders

Britain 1944 (*F*).

Summary. The film sets out to show how boys on leaving school can receive training for the building industry. The first part is devoted to the type of instruction they receive in one of the L.C.C.'s Schools of Building. The boys are seen learning bricklaying, joinery, carpentry, plastering and plumbing, etc., as well as subjects such as mathematics, chemistry and drawing. The second part of the film shows them working on the site as apprentices. They are seen helping to build a pair of cottages, and there are many close-ups which give a clear idea of the type of work involved in the various building trades.

Appraisal. The film is designed to attract recruits to the building industry and does so in a competent manner. The dialogue is somewhat unimaginative at times, but the film nevertheless achieves its object in the limited field it sets out to cover. The photography is, on the whole, good, especially some of the shots taken on the site of actual building operations. The film would be of interest to trainees in the building industry, and also to a limited extent to first year architectural students.

35 sd. 16 sd. 20 minutes. Central Film Library, Imperial Institute, S.W.7. (Reference U.K. 544.)

Arcon Mark V

Britain 1946 (*F*).

Summary. This film demonstrates the correct method to be adopted in the erection of the Arcon Mark V temporary bungalow. The vans which transport the parts to the site are so loaded that the parts can be taken off and placed in position on the ground in correct order ready for assembly. The actual erection and preparation for occupation is done by five teams who successively move on to the next bungalow as soon as their part in the erection is completed. Team 1 erects the steel framework and places the inside and outside cladding into position. Team 2 puts down the flooring, does the glazing and some plumbing. The partitions are then erected, ceiling panels put into position, the main flue-pipe inserted, and the hot air tube fitted into its shroud. Team 3 completes the plumbing work, fits cupboards and other necessary wood-work, and places in position the kitchen-bathroom unit, fixing bath and W.C., etc. Team 4 carries out the electrical installations and connects up points, etc. Team 5 fills and stops joints and does all painting and distempering. The house is then ready for occupation.

Appraisal. A competent workmanlike film which achieves the purpose for which it is made, namely, the instruction of the building teams who erect the houses. There is some excellent photography, and the various operations are clearly and accurately demonstrated.

35 sd. 16 sd. 40 minutes. Andrew Reid, 11 Garrick Street, W.C.2.

Notes and Notices

NOTICES

Harlow New Town Exhibition

An exhibition of models and plans illustrating the proposed new town at Harlow, arranged by the Harlow Development Corporation in collaboration with Mr. Frederick Gibberd [*F*], will be held at the R.I.B.A. from 23 to 30 October 1948 inclusive between the hours of 10 a.m. and 7 p.m. (Saturdays, 10 a.m. and 5 p.m.). To be opened 2.30 p.m. Friday 22 Oct.

R.I.B.A. Distinction in Town Planning

The R.I.B.A. Distinction in Town Planning may be conferred upon Fellows, Associates and Licentiates of the R.I.B.A.

It is the highest award in Town and Country Planning that the R.I.B.A. can bestow. It is primarily for members of the R.I.B.A. who have made some contribution in the field of large scale planning, especially in visual and three-dimensional planning which is so vital in the development schemes that will take place throughout the country.

Recommendations are submitted to the Council by a Standing Committee set up for the purpose. Personal applications by candidates will not be entertained. The name of the candidate must be submitted by three sponsors, themselves members of the R.I.B.A., who will be required to submit the following particulars on behalf of the candidates:—

(*a*) details of professional qualifications and experience;

(*b*) evidence of his work and achievements in the field of town and country planning, including three-dimensional planning, such evidence to consist of a list of the candidate's work together with references to professional journals in which the works have been illustrated, and such other evidence as may assist the Committee in making their recommendation to the Council.

Nominations should be made twice annually, on 1 March and 1 November, and should be addressed to the Secretary, R.I.B.A., 66, Portland Place, London, W.1.

Correspondence with the Institute

In order to facilitate speedier attention to correspondence, and to relieve the staff of a great deal of research, it is particularly requested that members and students will kindly state in all correspondence with the Institute the class of membership (F, A, L or Student) to which they belong.

Architectural Science Board
British Standard Specifications

Members of the R.I.B.A. Standard Specifications Committee who wish to bring any particular B.S.S. matter to the attention of the Co-ordinating Committee, are asked to communicate with the Secretary to the A.S.B.

BOARD OF ARCHITECTURAL EDUCATION

R.I.B.A. Final Examination, July 1948

The Final Examination was held in London, Edinburgh and Belfast from 30 June to 9 July 1948.

Of the 215 candidates examined, 102 passed as follows:

Passed Whole Examination	50
Passed Whole Examination, subject to approval of Thesis	38
Passed Whole Examination, subject to approval of remaining Testimonies of Study and Thesis	1
Passed Part 1 only	13
	102

113 candidates were relegated.

The successful candidates are as follows:

Whole Examination

Ackland, James B.
Allerton, Kenneth
*Alton, Jack P.
*Angus, Alexander V.
*Austin, Kenneth V.
Bailey, Barbara M. (Miss)
Bance, Roy E. K.
Bennis, David
*Bishop, Arthur
Bowering, Frederick J.
Bowman, Christine M. (Mrs.)
Bromage, Frederick W. A.
Burford, Douglas W.
*Capey, Alan G.
Chowdhury, Jugal K.
Churton, John
Clayton, John C.
Coates, A. Barbara (Miss)
Collinge, Ernest
Councell, Richard E. B.
*Craven, Kenneth W.
Curtis, John
*Dando, Kenneth W.
*Davies, Frederick C.
*Dovey, G. Chadwick
Driver, Margaret E. P. (Miss)
Edwards, L. Carlton
Erber, Eric
Foden, John W.
Foster, John P.
*Freeborn, Rodney W.
French, Frederick W.
*Fullman, Trevor
*Gabb, Maurice J.
*Galloway, Douglas
Gonsalves, Joseph
Goodchild, Jeanne F. (Miss)
*Greenland, Edward H.
*Harding, John L.
Hardstaff, Maurice
Harrison, Mary R. (Miss)
Hawthorne, Anthony H.
Herring, Mary (Miss)
Hislop, Malcolm J.
Holmes, John C.
*Houghton, John
*Humphreys, John R. B.
Jhabvala, Cyrus S. H.
Lewis, Charles R. E.
*Little, Charles M.
Lowes, Cyril
McWiggan, Graham
Madew, John S.
*Mallory, Alec L.
Marker, Ferokh H.
*Masters, Peter H.
Mein, Henry J.
*Metcalfe, Michael
*Miles, Ernest W.
*Montgomerie, Hector G.
*Morgan, K. Angus
*Moss, Arnold
*Mulhall, Bernard
*Needham, P. Rudd
*Newland, Albert C.
Peiris, Peter H. W.
*Pitts, James N.
Porter, William D.
Potter, John E.
*Prabhawalkar, Anant R.
Pyment, Desmond A.
Ransom, Colin W.
Reynolds, Donald A. R.
*Riding, Joseph W.
Schutte, Conrad H. T.
†Smith, Herbert S.
*Taylor, Gordon F.
Taylor, Paul H.
*Tietjen, Edward H.
Tischler, Franz
*Tischler, Hans P.
Twist, Kenneth C.
*Warner, Robert W.
*Watts, Dennis
*Westaway, Eric M.
Williamson, Albert E.
Wisniewski, Wiktor M. P.
*Woodcock, George F. H.
Woodhams, Joseph W. H.

Part 1 only

Aylwin, John M.
Blythe, Alan C.
Burstow, Ralph E.
Clarke, Peter A.
Franczak, Roman
Friend, Phillip D.
Gooday, Leslie H.
Hayes, Terence B.
Lewis, Tyssil W. G.
MacManus, George R. M.
Purkis, Arthur E.
Turner, Geoffrey
Wilmshurst, William E.

*Subject to approval of Thesis.

†Subject to approval of Thesis and remaining Testimonies of Study.

The Special Final Examination, July 1948

The Special Final Examination was held in London, Edinburgh and Belfast from 30 June to 9 July 1948.

Of the 341 candidates examined 85 (17 in Part 1 only) passed.

256 candidates were relegated.

The successful candidates are as follows:

Whole Examination

Anderson, John B.
Barnes, Frederick R.
Belchamber, John
Bickford, Reginald J.
Blackwell, Harold W.
Boxell, Cyril L.
Brazier, Norman H. F.
Brown, James
Chitty, Howard J.
Clark, Robert L.
Claydon, John A.
Coburn, Gordon E.
Connell, Hugh
Connett, Ralph G. O.
Cook, Alexander F.
Cordwell-Smith, Leslie M.
Coulten, P. Robert
Crammond, Maurice M.
Cross, Arnold
Crouchley, John R.
Davidson, George M.
Dobson, Arthur I.
Duffy, John W.
Eldridge, Frank H.
Evans, Dudley M.
Fairlamb, Bernard W.
Firshman, Harry
Fleming, Benedict
Gibbs, Stephen J.
Gilby, Daniel
Hannaford, Avro F. J.
Harris, Leonard R.
Henderson, Joseph A.
Hendry, James F. W.
Hughes, Walter J.
Ingoldsby, Joseph
Johnson, Leonard J.
Jones, Mervyn W. A.
Kane, John R.
Kinsman, Sidney J. C.
Levin, Ezra
Lewis, John V.
Lister, Norman
Luck, Leslie L.
MacIver, Peter W.
McMullon, Stanley J.
Mack, George R. A.
Millington, Arthur H.
Nicol, James W.
Palmer, Reginald T.
Parsons, Harold
Penfold, Henry G.
Prest, Harry A.
Robertson, David O.
Sealey, Walter G.
Selby, Frederick
Shearing, Arthur H. E.
Stenson, William H. G.
Sykes, Eric W.
Trant, Harold W.
Valkenburg, Bastiaan
Wall, John V.
Whitehouse, Joseph D.
Wilkie, Robert A.
Willcox, John T.
Wilson, Stephen
Young, Clifford
Young, K. Mathison

Part 1 only

Aldred, Edward
Bingham, Frederick E.
Bollon, Clarence M.
Brown, James
Forman, Robert
Frost, Austin T. D.
Garde, Robert C. R.
Gidlowe, Stanley
Howell, Daniel R.
Kretchmer, William
Long, Ivor D.
Michell, Howard N.
Moore, Alexander
Price, Leslie R. C.
Robertson, Peter M.
Slaney, Oliver E. F.
Sparrow, Kenneth G.

The following candidates have also passed the Special Final Examination:

Blockley, Leonard H.
Hill, Kenneth M.
Milligan, Stephen G. V.
Roscoe-Hudson, Alan
Rusted, John F.
Soulsby, John P. F.
Wallace, Thomas H.

The Examination in Professional Practice for Students of Schools of Architecture Recognized for Exemption from the R.I.B.A. Final Examination

The Examination was held in London and Edinburgh on 6 and 8 July 1948. Of the 16 candidates examined, 15 passed and 1 was relegated.

The successful candidates are as follows:

Adam, Andrew
Campbell, Frank
Cumming, Archibald
Galbreath, Murdoch
Hamilton, William M.
Mackenzie, Andrew R.
MacRitchie, Alistair C. C.
Miller, James W. C.
Munro, Archibald M.
Oliver, James
Scott, Gordon R.
Thakore, Chandrakant S.
Tulley, Desmond
Wilson, Norman R.
Woods, Ian R. J.

Archibald Dawnay Scholarships, 1948-1949.

The R.I.B.A. (Archibald Dawnay) Scholarships for 1948-1949 have been awarded as follows :—

A Scholarship of £65 to Mr. Roger C. Marshall of the Leeds School of Architecture.

A Scholarship of £65 to Mr. Kimball Pollit of the Leeds School of Architecture.

A Scholarship of £65 to Mr. Frank Shaw of the Leeds School of Architecture.

A Scholarship of £65 to Mr. A. R. C. Johnston of the Liverpool School of Architecture.

A Scholarship of £65 to Mr. A. P. Roach of the Department of Architecture, Northern Polytechnic.

A renewal of the Scholarship of £65 awarded for the Session 1947-1948 to Mr. D. P. Whitehorn of the Aberdeen School of Architecture.

A renewal of the Scholarship of £65 awarded for the Session 1947-1948 to Mr. G. Clayton Smith of the Leeds School of Architecture.

A renewal of the Scholarship of £65 awarded for the Session 1947-1948 to Mr. Roger Booth of the Leeds School of Architecture.

A renewal of the Scholarship of £65 awarded for the Session 1947-1948 to Mr. Ian Smith of the Oxford School of Architecture.

A renewal of the Scholarship of £65 awarded for the Session 1947-1948 to Mr. Gilbert P. Howes of the Oxford School of Architecture.

R.I.B.A. Final Examination

Mr. Gerald D. Frankish (Student), Hull, has been awarded *Distinction in Thesis*.

COMPETITIONS

International Town Planning Competition

Stockholm's Town Planning Board invites experts of all countries to take part in a competition in connection with a new main artery between the districts of Södermalm and Östermalm (Norra Djurgarden) via Södra Djurgården.

Assessors:

The commissioner for the town planning department, Helge Berglund, chairman.
Professor Sir Patrick Abercrombie [*F*].
Hakon Ahlberg, architect.
Anders Ahlén, civil engineer.
David Anger, civil engineer.
Professor Anker Engelund.
The commissioner for the harbour department, Harald Göransson.
Hans von Heland, assistant city treasurer.
Sven Markelius, city planning director.
Ernst Sundström, civil engineer.
Gunnar Wetterling, city architect.

Premiums:

The jury have at their disposal the sum of 60,000 Swedish crowns. Of this, 48,000 crowns shall be awarded in prizes, and 12,000 crowns used for purchasing proposals. Four prizes shall be awarded. Unless a unanimous jury decide to the contrary, the first prize shall be 20,000 crowns.

The lowest prize shall not be less than 6,000 crowns, nor the lowest purchasing price less than 3,500 crowns. Winning entries, or proposals purchased, become the property of Stockholm City, without further compensation. Last day for submitting designs: 1 April 1949.

Conditions may be obtained from Tävlingsfunktionären, Stockholm stads stadsplanekontor, Stadshuset, Stockholm.

Deposit: 100 Swedish crowns.

COMPETITION RESULTS

Competition for Designs for Public Telephone Kiosks, Department of Posts and Telegraphs, Dublin.

1, Mr. Neville Conder, A.A.(Hons.)Dip. [*A*]; 2, Mr. J. G. Browne [*A*]; 3, Mr. S. H. Smith [*A*].

The Royal National Eisteddfod of Wales, Bridgend 1948.

Competition 192. 'A County College'.

Winner: Mr. Norman D. Ayres, Dip. Arch. (Wales) [*A*].

Highly commended: Mr. Geoffrey P. Platt [*A*].

Competition 193. 'A neighbourhood layout for a population of 10,0000'.

Winner: Mr. Merlyn C. Williams, Dip. Arch. (Wales) [*A*].

Highly commended: Miss Ishbel Sim [*A*].

ALLIED SOCIETIES

Changes of Officers and Addresses

West Yorkshire Society of Architects, Bradford Branch. Chairman, Mr. P. W. Walker, 12 The Exchange, Bank Street, Bradford.

Wessex Society of Architects, Gloucestershire Architectural Association. Secretary, Mr. D. R. B. Broom, F.R.I.C.S., 1 North Place, Cheltenham. Mr. R. W. Paterson [*A*] retains the office of Honorary Secretary.

North Wales Architectural Society. President, Mr. R. Parker, M.C., F.R.I.C.S. [*A*], Mostyn Estate Office, Llandudno, N. Wales.

Royal Architectural Institute of Canada, Alberta Association of Architects. President, Mr. Gordon K. Wynn, 300 Birks Building, Edmonton, Alberta. Hon. Secretary, Mr. T. Gordon Aberdeen, 108 Agency Building, Edmonton, Alberta.

GENERAL NOTES

Cricket

Three fine days were vouchsafed to the R.I.B.A. cricket team for their three fixtures during the past Summer, and most exciting games resulted, the R.I.B.A. losing by a small margin on each occasion. Twenty members took part in the matches, while Mr. S. B. Caulfield kindly undertook the onerous duty of Umpire.

It is hoped to hold an informal dinner in November, to elect a Committee and discuss next season's fixtures. All members interested in cricket will be most welcome at the dinner and should notify Douglas Taylor, 24 Dean Street, London, W.1., if they wish to receive further particulars.

Results of matches played were:—

Versus The Architectural Association on 23 June at Elstree. R.I.B.A. 76, A.A. 85. R.I.B.A. lost by 1 wicket.

Versus The Surveyors on 11 July at Elstree. The Surveyors 153, R.I.B.A. 114. R.I.B.A. lost by 39 runs.

Versus The Blue Circle Sports Club on 25 July at Snaresbrook. The Blue Circle Sports Club 162 for 8 wickets declared, R.I.B.A. 141. R.I.B.A. lost by 21 runs.

Polytechnic: School of Architecture, Surveying and Building

The following members of the School were awarded the Diploma in Planning in July 1948. *Distinction:* E. C. Francis, R. A. Pistorius, J. K. M. Sanderson [*A*]. *Pass:* F. Andrassy, W. W. Chapman [*A*] (subject to submission and approval of thesis), (Miss) E. Felce, A. C. Garwood [*L*], R. J. Harris [*A*], K. I. Joseph, H. Perry, C. E. Plews [*A*], F. Rawson, R. E. Reed [*A*], R. Rosner [*A*], E. G. Sames, S. K. Sturdy, R. D. Thornley [*A*], C. E. D. Wooster [*A*].

Obituaries

Christopher David George Nicholson, M.A. [*F*] who was killed on 29 July while flying as a member of the British team in the International Gliding Competitions at Samaden, near St. Moritz was born in 1904 and was a son of Sir William Nicholson, the painter.

He was educated at Greshams School, Holt and Jesus College, Cambridge, where he was Anderson and Webb Scholar in the School of Architecture, the teaching staff of which he later joined. He took his degree in architecture in 1927 and, at the University of Princeton, U.S.A., where he studied for two years, he was awarded the Davidson Scholarship.

Mr. Nicholson set up in private practice in London in 1932. He designed Augustus John's studio near Fordingbridge and the Dunstable headquarters of the London Gliding Club as well as many private houses. From 1939-45 he served with the Fleet Air Arm and completed 1,500 hours as first pilot (he was one of the pioneer gliding experts in this country), being released in 1945 with the rank of Commander R.N.V.R.

Upon release from the Navy he again set up in private practice with Mr. Hugh Casson, M.A. [*A*] and his growing practice compelled him to give up part-time teaching at the A.A. School of Architecture. He was consultant architect and industrial designer to British European Airways and as industrial designer to Ferranti Limited he was responsible for a number of the latest Ferranti radio cabinets: his experience in design and exhibition work led him to be appointed by the Council of Industrial Design as one of the architects for the Furnished Rooms Section of the 'Britain Can Make It' Exhibition and the Board of Trade appointed Mr. Nicholson one of the three architects who supervised the design of the Earls Court section of the British Industries Fair. He was architectural consultant to the committee, under the chairmanship of Whitney Straight, appointed to advise the Air Minister on the administration of private aviation, architect to Our Dumb Friends' League for whom he prepared two large schemes, and to the Cement and Concrete Association.

An external examiner to the R.I.B.A. Mr. Nicholson was a member of the Board of Architectural Education having, as above stated, had experience of teaching architecture at the A.A. and at Cambridge. He served on the Council of the A.A. from 1933-39.

Mr. Hugh Casson, M.A. [*A*] has sent the following appreciation:

All obituary notices are inevitably incomplete. Man is more than the sum of his achievements and when he dies each friend must supplement the record with his own memories and re-draw the portrait with his own remembering eye. Such a task is never easy—particularly for a close friend—and it is just because I had the privilege of knowing and working with Nicholson for nearly 20 years that I realize how inadequate this brief tribute to him must be.

The main events and accomplishments of his life are listed above. From this record two things, I think, stand out. First the number and variety of his interests, and second the remarkable success he achieved in each one of them. Everything, it seemed, he put his hand to, he did well. What was the secret? Obviously there is no recipe for such success but Nicholson possessed some essential ingredients in abundance. First of all his powers of concentration were outstanding. Whether designing a hangar or playing snooker at the Savile, whether tackling a 'cross-country' in his sailplane, or running a wartime aerodrome, he kept his mind on what he was doing, his head clear of distractions, and insisted always upon completely understanding every detail of any problem placed before him. This quality was only matched by his power of enjoyment. He did many things and he thoroughly enjoyed doing all of them. Better still he saw to it that those who worked with and for him were able to share in this enjoyment. Finally, and most characteristic of all perhaps was his vitality of mind and body. He seemed at times almost to burn with life. Physically he was strong—I have hardly ever known him to be ill—and his mind was constantly alert, vigorous, aflame with interest and ideas.

There are many places where this warmth and brilliance of personality will be missed. As an architect, his work may be left to speak for itself. Every product of his mind bears the stamp of an original and powerful imagination. Inevitably a pioneer in the Modern Movement he was never constricted by doctrine—I first learned from him that it is not necessary to despise Lutyens in order to admire Le Corbusier—and though a self-confident designer, as all good artists must be, he was never for a second self-satisfied. His practice was busy and varied but he never became, nor would he ever have become, a 'telephone architect'. He loved drawing, found endless delight in detailing, was always at the board when not on the job. It was typical of him, I think, that he never had a desk in his office.

As a teacher he was rich in the essential qualities of knowledge, enthusiasm and patience. He was my studio master at Cambridge and I never ceased to learn from him. As a wartime sailor he was enthusiastic, capable, and brave. He won quick promotion and it was characteristic of him that, when posted to Ceylon, he 'badgered' the Admiralty into letting him fly out there alone in a 'Hellcat', and that he was in the end the only one of his group to arrive. His position in the British Olympic Gliding Team indicates his standing as a sailplane pilot. As a man—well that is always hardest to assess, but even this can be measured by the affection of a myriad friends.

Re-reading this notice I see I have not escaped the familiar trap. Every man who dies, it seems, becomes at once a slightly unreal and unfamiliar paragon of virtue, swathed in superlatives which, however genuinely meant and well deserved, seem sometimes to blur instead of delineate the outline. Yet to say less just because some words are over-smooth with use would be dishonest and untrue. It is comforting, too, to know that Nicholson's talents and personality were such that they will in any case survive the most fumbled tribute to his name. I shall always remember his gaiety, his directness, and his warmth, and I find it some consolation that the sense of loss at his going is shared by so many of us.

David Alston Beveridge [*F*], well known in Liverpool, who practised in Dale Street, died suddenly at Town Green Lane, Aughton, near Liverpool, on 7 August.

Mr. Beveridge belonged to Edinburgh and, after serving in the first World War, went to Liverpool to take up his professional work, and in Dale Street later set up in practice on his own account.

He became a Fellow in 1927, was aged 72, and a bachelor.

George MacRitchie [*L*], of Fort William, died on 15 July, aged 67. Born at Blairgowrie, he went to Fort William as assistant to the late Mr. James Falconer, and on Mr. Falconer's retirement he took over the practice and designed houses, shops and many other types of buildings at Fort William and district, including the West Highland Hotel, Mallaig.

Harold Albert Thomerson [*A*], who practised at Queensay, Bayswater, died on 15 July last, having been in indifferent health for some years. He was articled to the late Mr. H. W. Finch [*F*], and studied at the Architectural Association, being elected an Associate of the R.I.B.A. in 1919. He served in the 1914-18 war with the Royal Fusiliers, and after demobilization was engaged on interior decoration work in connection with P. & O. liners.

When he was in partnership with the late Mr. H. Shepherd [*F*] he built, in collaboration with Mr. Shepherd, the Porchester Hall and Turkish and Russian vapour baths for the Metropolitan Borough of Paddington, and the library and reading room there, opened in September 1929. The firm also designed the Westbourne Park Building Society's headquarters in Westbourne Grove and Hatherley Court flats in the same road.

Leonard Gray Ekins [*Ret. F*] was from 1916 to September 1942 chief architect to the Co-operative Wholesale Society Ltd., and worked in the Society's office in Newcastle before coming to London. He designed a large number of buildings for the society, including the new administrative offices in Prescott Lane, London, E.1, and the flour mills and grain silos at Royal Victoria Docks—one of the largest flour milling projects in the country.

Upon his retirement in 1942, Mr. Ekins went to live at Hunstanton, where he became a councillor and acting architect for the L'Etrange Arms Estate.

Mr. Ekins was born in 1877 and died on 28 July 1948.

George Henry Gordon Marriott [*A*] was killed in an accident on 24 July 1948 at the early age of 34. He was trained at the Regent Street Polytechnic, London. He practised at Potters Bar, Middlesex, from 1945 to April this year, in which district he designed flats, houses, a sports club and a factory, and then emigrated to Southern Rhodesia to take up the appointment of Chief Architect to the Public Works Department at Freetown.

Mr. Rupert Sparrow [*L*] succeeded to the practice at Potters Bar.

George John Skipper [*F*], of Norwich, was 94. Sometime architect and surveyor to East Dereham Urban District Council, Blofield and Aylsham Rural District Councils and seven other councils, his earlier work included the Norwich Union Life Insurance Society Head Office, Norwich, the Royal Norfolk and Suffolk Yacht Club-house, Lowestoft and Cromer and Hunstanton town halls. He built the Shepton Mallet Hospital, Somerset, and cottages for King George V at Sandringham.

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Members' Column

This column is reserved for notices of changes of address, partnership and partnerships vacant, or wanted, practices for sale or wanted, office accommodation, and personal notices other than for posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. C. A. Bransgrove [*A*] has resigned his appointment as Chief Architect to Messrs. Pauling and Co. Ltd. on the East African Groundnuts Project and is practising in Tanganyika on his own account. Trade catalogues, etc., will be welcomed, c/o Barclays Bank Ltd., Dar-es-Salaam, Tanganyika.

Mr. Ernest G. Fowler [*F*] is retiring from the position of Architect to the Leicestershire County Council Education Committee on 9 September and will be pleased to receive trade catalogues, etc., at his new address, 'Brooklyn,' The Oval, Oadby, Leicester, to which all correspondence should be directed.

Mr. N. Meagher [*A*] has taken up an appointment with the Kildare County Council and will be pleased to receive trade catalogues, etc., at the County Council offices, Naas, Co. Kildare, Eire.

Mr. James C. Morgan [*A*] has taken up an appointment as Senior Planning Assistant with the Salop County Council and will be pleased to receive trade catalogues, etc., addressed to him c/o The County Planning Department, Salop County Council, County Buildings, Shrewsbury.

Mr. David Percival, B.A. [*A*] has resigned his appointment with the County Borough of Newport (Mon.) on being appointed to the permanent staff of the Ministry of Town and Country Planning. He has been assigned to the Wales Region and his address is now 41 Melfort Road, Newport, Mon.

Mr. H. Pittaway [*A*] has been appointed by the Railway Executive to be Architect to the Southern Region of the Railway Executive. His office is at Waterloo Station, London, S.E.

Mr. Robert Thomson [*A*] has been appointed architect to Messrs. J. W. Cameron & Co., West Hartlepool Ltd., Co. Durham, to which all correspondence should be addressed. He will be pleased to receive trade catalogues, etc.

PRACTICES AND PARTNERSHIPS

Mr. Derek Bridgwater, B.Arch. [*F*] has taken into partnership **Mr. Peter Shepheard,** B.Arch. [*A*], who has resigned from his post of Deputy Chief Architect to the Stevenage Development Corporation and from the Ministry of Town and Country Planning. They will practise in architecture, town planning and landscape architecture under the name of **Bridgwater and Shepheard.** The address of the firm will remain 42 Bruton Place, Berkeley Square, London, W.1 (Mayfair 6391-2).

Mr. D. Buckler [*A*] has taken an appointment at 23 Railway Street, Chatham, Kent, where he will be pleased to receive trade catalogues, etc.

Mr. John Sanderson Houghton, M.A. [*L*] has resigned his partnership in **Messrs. Mitchell and Houghton** [*F L*], of 38 Churchgate Street, Bury St. Edmunds, and will commence practice on his own account at 'The Hollies,' Hinderwell, Saltburn-by-the-Sea, North Yorkshire, which will be his new address from 25 October 1948, and he will be pleased to receive trade catalogues, etc., there after that date.

Mr. John A. McMorland [*A*], having taken up an appointment in South Africa, will be pleased to receive trade catalogues, etc., c/o Messrs. Stucke, Harrison and Smail, 14 Boston House, Strand Street, Capetown.

Mr. J. L. Mumsden [*A*] has commenced practice at 49 Constitution Street, Leith, Edinburgh 6, having resigned his appointment as Staff Architect, The Eglinton Hotels (Scotland) Ltd. He will be pleased to receive trade catalogues, etc.

Mr. H. Cullerne Pratt [*A*] has commenced practice at 399-401 High Street, Stratford, London, E.15 (Seven Kings 1163) and will be pleased to receive trade catalogues. etc.

The Assistant Director (Architectural) Public Works Department, Headquarters Office, Lagos, Nigeria, West Africa, and The Regional Architects, Public Works Department at (i) Kaduna, Northern Provinces; (ii) Enugu, Eastern Provinces; (iii) Ibadan, Western Provinces, Nigeria, West Africa, will be pleased to receive trade catalogues, etc., to enable them to bring their libraries up to date.

The partnership existing between **Mr. Richard H. Whiteing** [*L*] and **Mr. L. A. Reynolds** [*F*] at 3 North Bar Street Within, Beverley, Yorkshire, is dissolved and **Mr. R. H. Whiteing** [*L*] will practise at 7 Hengate, Beverley (Beverley 142).

Mr. Winston Walker [*A*] has entered into partnership with **Mrs. Mary Eliot Walker** [*A*] and they will practise under the style of **Walker and Walker** at 107 Sloane Street, London, S.W.1. Mr. Walker has relinquished two minor appointments, that of consultant to Messrs. Metallic Building Products Ltd. and that of Technical Adviser to 'Official Architect and Planning Review', but he will continue to lecture on architecture at the Hammersmith School of Building, Arts and Crafts.

Messrs. H. Rochead Williamson [*L*], **Peter McD. Robertson** and **J. Eversdon Henderson** [*A*] are continuing the practice of the late Mr. H. O. Tarbolton, R.S.A. [*F*], and Sir M. M. Ochterlony, Bt. [*F*], at 4 St. Colme Street, Edinburgh (Edinburgh 27442), under the name of **Tarbolton and Ochterlony.**

CHANGES OF ADDRESS

Mr. A. L. Barley [*A*] has removed from 68 Hillside Road, Northwood, Middlesex, to c/o Thos. B. McArravy, Leighton Building, Nanaimo, British Columbia, Canada.

From 1 October the address of **Mr. A. R. Bramley** [*A*] will be Pen-y-Bryn Isaf, Pen-y-Bryn Road, Upper Colwyn Bay, North Wales (Colwyn Bay 2729).

Mr. T. R. Gibson [*A*], who has recently relinquished his appointment as County Planning Officer to the Londonderry County Council, Northern Ireland, to take up a new housing and town planning appointment with the Commonwealth Government of Australia, announces his new address as from 1 September 1948: c/o Flat 3, 'Kingwell Court,' 90 Birriga Road, Bellevue Hill, Sydney, New South Wales, Australia.

Mr. W. J. Horton [*L*], late of Cambridge, is now at the Borough Engineer and Surveyor's Office, Town Hall, Romford, Essex, to which all future communications should be sent.

Mr. A. L. Mortimer [*F*] has recently returned from India. His address is 'Alipore,' Oakfield Road, Ashtead, Surrey.

Mr. Louis Charles Moulin [*A*] has removed from 65 Cathnor Road, London, W.12, to 230 Goldhawk Road, Shepherds Bush, London, W.12 (Shepherds Bush 2728).

Messrs. W. G. Phillips and Partners [*L*] have opened new offices at 97 Mortimer Street, Oxford Circus, London, W.1.

Mr. Kenneth Pitchford [*A*], whose address for private correspondence is 11 Hill View Avenue, Leeds 7, will be pleased to receive trade catalogues, etc., addressed to him c/o City Engineer and Surveyor, Town Hall, Bradford.

Mr. Donald R. Stewart, M.A. [*A*], on 1 September 1948 removed from 17 Avenue Road, Bishop's Stortford, Herts, to 36 Great Smith Street, Westminster, London, S.W.1.

Mr. Donald Wagg [*A*] has changed his address from c/o Williams, architect, Nelson, British Columbia, to Suite 403 Stobart Building, 745 Yates Street, Victoria, British Columbia, Canada.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Associate, A.M.T.P.I. (41), seeks opening with prospect of early partnership in established practice in Scottish lowlands. Sound experience in school, housing and industrial work. Box 175, c/o Secretary, R.I.B.A.

Associate (30) seeks partnership or position with view to partnership in London area. Box 168, c/o Secretary, R.I.B.A.

Associate, Dip.Arch. (30), seeks junior partnership or position leading thereto in country practice, preferably Hants, Berks or Oxon. Excellent connections and prospects though immediate work of small nature. Box 170, c/o Secretary, R.I.B.A.

Fellow (aged 36), Dip. Arch., Distinctions (Liverpool), Dip. T.P., A.M.T.P.I., having wide experience of housing, public, industrial and agricultural buildings, seeks practice or partnership. Any district considered except London. Limited capital only available. Box 172, c/o Secretary, R.I.B.A.

Fellow in North Western city with long-established practice, requires partner. Box 171, c/o Secretary, R.I.B.A.

Fellow, returning from abroad, wishes to purchase practice or partnership in Surrey or South of England. Box 179, c/o Secretary, R.I.B.A.

Member with general practice in Central London requires younger member to share offices and give assistance with view to partnership. Box 177, c/o Secretary, R.I.B.A.

Old-established firm of London architects invite applicants for the position of Junior Associate. Applicants should be good designers and well connected. No capital required. Correspondence treated in confidence. Box 174, c/o Secretary, R.I.B.A.

Old-established practice in Plymouth for sale, principals only. Box 176, c/o Secretary, R.I.B.A.

WANTED AND FOR SALE

Wanted. *Experimental Building Science*, Vol. 2, by Manson and Drury, also *The Essentials of Reinforced Concrete Design* by R. F. B. Grundy. Box 180, c/o Secretary, R.I.B.A.

For sale. Pine plan chest comprising 4 drawers, taking double elephant, 5 in. and 7 in. deep, and 4 drawers, size 1 ft. 9 in. by 2 ft. 6 in., of same depths. Overall dimensions of inlaid table top with bullnose edges, 6 ft. 9 in. by 3 ft. 4 in. Height 3 ft. Offers to Box 178, c/o Secretary, R.I.B.A.

For sale. *Town Planning in Practice* (Unwin), six bound volumes of *Town Planning Journal*, 1937-1944, *The Law of Town Planning* (Safford and Oliver). All in new condition. Box 173, c/o Secretary, R.I.B.A.